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# APPENDIX D - PUBLIC INVOLVEMENT PLAN (PIP)



## CITY OF AUSTIN AQUATICS MASTER PLAN PUBLIC INVOLVEMENT PLAN (PIP)

Submitted By  
Brandstetter Carroll Inc. And Adisa Communications

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The City of Austin Parks and Recreation Department (PARC), and the consultants with whom it has partnered for an Aquatics Master Plan to be conducted in 2015 are committed to an open, inclusive, proactive and transparent program of public engagement. This Public Involvement Plan (PIP) forms the basis for a common approach to communications and outreach. It includes goals and objectives to be achieved and strategies and tactics to be deployed by City staff, members of the consultant teams, and other communication partners as appropriate.

## **D.1 GOALS AND OBJECTIVES**

### **Goal 1**

To provide users, neighbors, and other direct stakeholders served by each existing pool facility with sufficient opportunity to contribute their input to the City of Austin and its consultants to inform and help shape the results of the Master Plan:

#### **Objective 1-A**

Utilize and expand upon the extensive community engagement gained through the SWIM 512 process and utilize the stakeholder contacts from this process in further engagement strategies.

#### **Objective 1-B**

Informing stakeholders about the Master Plan; the processes and timelines; the goals, objectives and anticipated outcomes; and their ongoing progress.

#### **Objective 1-C**

Collecting stakeholder input that aids in assessing and defining current characteristics, conditions and needs of each district.

#### **Objective 1-D**

Collecting stakeholder input that aids in developing a vision that defines the desired physical, functional, aesthetic and cultural character of each district.

#### **Objective 1-E**

Collecting stakeholder input to aid in identifying enhancement needs, including recommendations for policy measures, capital investments, and opportunities for collaboration with both public and private partners.

#### **Objective 1-F**

Presenting recommendations for public comment, review and feedback.

### **Goal 2**

To ensure that traditionally underrepresented and hard-to-reach populations and groups have sufficient opportunity to engage in the Master Plan process. This goal will involve using targeted and customized outreach strategies to ensure opportunities to participate for populations and groups including the following:

#### **Objective 2-A**

Environmental justice (EJ) populations.

#### **Objective 2-B**

Non-profit, faith-based and other community-serving organizations and their clients.

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### **Objective 2-C**

School communities (students, parents and staff) for campuses served by each facility. Utilize AISD and PTA contacts established in the SWIM 512 Process.

## **Goal 3**

To maintain communications and outreach between the City and its consultants and other aquatics providers, government agencies, and key public and private partners, including:

### **Objective 3-A**

Targeted outreach to public officials and key decision-makers to inform them of Aquatics Master Plan goals, objectives, anticipated outcomes, process and timeline.

### **Objective 3-B**

Coordination and collaboration between the City and other agencies, providers and partners to leverage the use of the various available communications channels and outreach opportunities.

## **Goal 4**

To communicate and enable opportunities for input for interested citizens throughout the City through appropriate engagement and outreach strategies, including:

### **Objective 4-A**

Informing the public of the purpose and need, process and outcomes for the Aquatics Master Plan and their relationship to the Needs Assessment and the City's overall mobility policies and programs.

### **Objective 4-B**

Providing information and opportunities for engagement for recreational/aquatics advocates and other communities of interest that align with the purpose and need of the Master Plan.

## **Goal 5**

Utilize and expand upon the extensive community engagement and contacts gained through the SWIM 512 Community Conversations, Neighborhood Talks, Community Focus Groups, and Community Survey, and utilize the stakeholder contacts from this process in further engagement strategies.

### **Objective 5-A**

Analyze and utilize the results of the Community Conversations and Neighborhood Talks in the identification of community preferences and identification of alternative scenarios

### **Objective 5-B**

Utilize the Community Preference Survey developed by Dr. Cortez to identify community preferences and priorities.

### **Objective 5-C**

Incorporate the stakeholder lists and AISD contacts in further public engagement.

### **Objective 5-D**

Utilize the findings of the Service-Learning Project in the establishment of scenarios to serve Austin.

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## D.2 AQUATICS MASTER PLAN STAKEHOLDER GROUPS AND RESOURCES

**The Technical Advisory Group\* (TAG)** is primarily City staff and would include representatives from the following groups/agencies/departments:

- Watershed Protection to address water quality issues and City of Austin existing conditions, such as regulatory and ordinances and emptying to creeks. The person may be Liz Johnson from this group. She is also involved in the Govalle and Shipe projects.
- The Land Development Group is part of Public Works and is involved in the City of Austin permitting. They will identify some of the ramifications of any new or re-developed areas.
- Imagine Austin and Code Next is a big picture organization with emphasis on codes and zoning.
- The Austin Office of Sustainability with a role of environmental awareness. The person representing this group will be Angela Hanson.
- University of Texas Aquatics and Charles Logan will provide their technical expertise on pool operations and would be a possible renter of facilities.
- AISD is a potential partner in the use of the pools.
- A pool aquatics specialist from the construction industry is another potential partner.

**The Aquatic Advisory Board\* (AAB)** is an existing committee of internal stakeholders with a thorough understanding and history of engagement with the pools and programs. There are seven members.

**Technical Team\* (TT)** is primarily the PARD Aquatics Division staff which will review the details and operations of maintenance part of the planning as well as designs. This will include Rey Hernandez, Cheryl Bolin, Wayne Simmons, Pedro Patlin, the Aquatics Supervisor, Paul Slutes of Maintenance, George Moldanado from Facility Services, and Mr. Elbert who leads maintenance.

**District Representatives Group (DRG)** – There will be one representative from each of the Council Districts.

**BCI Consultant Team** – The contracted consulting team consisting of Brandstetter Carroll Inc., Architecture Plus, Adisa Communications, JLJ Enterprises, and Chan & Partners LLC.

**SWIM 512 Process – PARD** contracted with Dr. Laura Cortez of Cortez Consulting Services prior to the Master Plan contract being awarded. The purpose of her team's engagement was to start the process while the 2015 summer swim season was still open and to engage users. The SWIM 512 process also included: facilitation of focus groups, community conversations, neighborhood talks, assistance in establishing the District Representatives Group, AISD presentations, a service learning project to identify national trends in aquatics, and development of a survey instrument which could be used by the Consultant Team as part of the public engagement process.

**Austin Public Information Office (COA-PIO)** will assist with promotion of the public engagement process and development of a video of the existing conditions.

**PARD Public Information Office (PARD PIO)** will work with the Consultants and Master Plan Team in the promotion of the public engagement process and logistics for public engagement meetings.

**Master Plan Team\*** - The Master Plan Team is comprised of the Aquatic Advisory Board, Aquatic Division Technical Team, and the Technical Advisory Group.

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## D.3 STRATEGIES AND TACTICS

### Stakeholder Outreach

This strategy includes all activities that are specifically targeted to defined individual stakeholders and groups of stakeholders, such as neighborhood groups, business groups, adjacent property owners, elected officials and the groups serving them, etc. This outreach will be a vital component of the overall engagement strategy for the Master Plan and is intended to complement and enhance engagement opportunities designed for broad public participation (see Strategy 2 below). Tactics to be deployed include:

1. Developing stakeholder databases and contact lists. Initial lists of identified stakeholders for each District will be developed by the PARD and Consultation teams with input from the City. These lists should include sufficient coding to identify particular stakeholder groups, allowing for multiple codes for individual records. All persons who would receive standard notification of a City land-use action (e.g., adjoining property owners, identified registered neighborhood groups) should be included and appropriately coded in stakeholder databases. Members of the public who sign up to participate online or in person should, where possible, be appropriately coded as stakeholders. Participants in the SWIM 512 process from the Community Conversations, Neighborhood Talks, and Community Focus Groups will be included in further engagement. Stakeholder lists and databases should be maintained using tools and systems that allow for interchange of data as necessary between City and Consultant teams.
2. Individual and small-group meetings with identified stakeholders. These include meetings hosted by the City and consultant teams to which identified stakeholders are invited, or those (e.g., neighborhood association meetings) held by stakeholders to which the Aquatics Master Plan team is invited. In either case, a presentation and discussion guide should be developed to allow for consistent, structured input by all participating stakeholders. Detailed notes from these meetings should be prepared as work product for internal use by the City and consultant teams; input received should be summarized for public use. These meetings can include efforts to reach traditionally underrepresented and hard-to-reach populations as described in Goal 2 above.
3. Targeted information pieces. Both print and electronic should be developed as needed to supplement general project communications and address issues of specific relevance to defined stakeholder groups. These pieces should be developed to be consistent in look, feel, and tone with general project communications.
4. Technical Advisory Group meetings. This group will serve as a working group to provide input in the details of the Aquatics Master Plan.

### Public Outreach

This strategy includes activities that are intended to be accessible to all interested citizens, even if those activities are programmed to emphasize the needs and interests of specific groups. Tactics include:

#### 1. Initial Public Meeting to be Held City-Wide

This meeting should use an open-house format to communicate the purpose and process of the Master Plan, allow participants to sign in and sign up to receive ongoing project updates, and collect feedback and input using standardized techniques (e.g., comment forms). Meeting notices (including print and electronic mailings, flyers, posters and push cards for distribution in the study area); letters to public officials; and media release announcements to publicize these meetings should be distributed with sufficient notice to maximize participation. All records of participation and comments received should be documented and made available for internal use and summarized for public use. The primary purpose of this meeting will be part of the process to identify community values and priorities.

#### 2. Participation in other Public Meetings

Opportunities for outreach provided by other public meetings and events in the Aquatics Master Plan areas should be leveraged where appropriate. These could include meetings being held as part of other City or partner agency initiatives or other types of community events. Exhibits developed for open-house

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meetings, comment forms, and other such tools should be used. Participation should be documented and summarized as is feasible.

### **3. Public Workshops on the Aquatics Master Plan**

A series of public workshops will be held to assist the City with planning for the Master Plan by engaging stakeholders and users of the system. These widely publicized meetings can be held in the quadrants of the City in order to encourage participation. Topics can include:

- Community Values
- Aquatics System Needs Assessment Results
- Alternative Aquatics Service Delivery Scenarios

### **4. Final Public Meeting (Draft Plan presentation)**

A final public meeting of the Aquatics Master Plan will be held to present draft recommendations and allow for public feedback and comment. The format of this final public meeting, including the techniques used to collect feedback, should be determined as appropriate for the Master Plan, as long as this feedback is adequately collected, documented, and summarized. Notification and outreach to encourage participation should be conducted as outlined above.

### **5. Presentation to City Boards, Commissions, and City Council**

The City Aquatics staff and consultant teams will conduct outreach as needed to support public awareness as well as take advantage of opportunities to engage City boards and commissions through briefings and presentations.

## **Print and Electronic Communications Materials**

The City and consultant teams will develop necessary print and electronic materials for ongoing communication and education about the Master Plan to both general and specific audiences. Tactics include:

#### **1. General interest list**

Interest lists to be used for distribution of print and electronic materials should be maintained in conjunction with stakeholder databases as described in Strategy 1.

#### **2. Fact sheet**

Update the existing fact sheet template with consistent branding and messaging.

#### **3. Website**

Information for Master Plan will be hosted, maintained and made available at PARD website.

#### **4. Initial Paper Survey**

To be administered at community meetings in a face-to-face environment throughout the first 2-3 months of outreach. For the paper survey, the process would use the questions from the SWIM 512 Community Preference Survey. Dr. Cortez will be responsible for providing a final version of the Community Preference Survey in both English and Spanish based on the input provided from PARD and the BCI Master Plan Consultant Team. Adisa would be responsible for administering the survey. The City would be responsible for compiling the results. Results from the paper survey are intended to bolster minority and underrepresented populations' participation, particularly in East and South Austin.

#### **5. Online/Electronic Survey**

To be administered as part of the Master Plan during the Scenario Selection phase of the project. Adisa would work with the City of Austin to develop, administer, and compile results from the online survey.

## D.4 ROLES AND RESPONSIBILITIES

Generally, responsibility for activities to implement this PIP will be allocated between the City and the consultant team as outlined below.

### City of Austin Staff

- Stakeholder identification, including provision of customary City notification lists
- Coordination of dates and locations for public meetings
- Preparing questionnaires, discussion guides, sign-in-sheets, comment forms, etc. for use in public meetings
- Distribution of meeting notices, letters to public officials, media releases
- Maintenance of web presence

### Consultant Team

- Public involvement plan
- Stakeholder identification and database development /maintenance
- Interest list (mailing list) development and maintenance
- Exhibits for public and stakeholder meetings
- Staffing and logistics for public and stakeholder meetings
- Development of meeting notices, letters to public officials, media releases
- Documenting participation and input received at public meetings
- Development of print and electronic communications materials and Web content

## D.5 ANTICIPATED PUBLIC INVOLVEMENT TIMELINE

November – December 2015	<ul style="list-style-type: none"> <li>▪ PIP development</li> <li>▪ Materials/Web development</li> <li>▪ Initial stakeholder database and interest list development</li> <li>▪ Planning/logistics for first public workshop</li> <li>▪ Initial stakeholder meeting – Kick off with Aquatics Advisory Committee and Master Plan Team</li> <li>▪ Focus Groups (by Dr. Cortez)</li> </ul>
January 2016	<ul style="list-style-type: none"> <li>▪ Process Plan presentation and approval</li> </ul>
February 2016	<ul style="list-style-type: none"> <li>▪ Promotion of Workshop and Stakeholder Meetings</li> <li>▪ Distribution of Community Preference Surveys</li> <li>▪ Launch SpeakUp Austin Questions</li> </ul>

March 2016	<ul style="list-style-type: none"> <li>▪ Public Workshop #1 – Plan Overview and Community Values</li> <li>▪ Distribution of print/electronic information materials</li> <li>▪ Additional stakeholder database and interest list development</li> <li>▪ Additional stakeholder/public meetings as needed</li> </ul>
April – June 2016	<ul style="list-style-type: none"> <li>▪ Meetings with Technical and Council Advisory Groups, Master Plan Team</li> <li>▪ Print/electronic project updates</li> <li>▪ Web content</li> <li>▪ Illustrate Alternative Scenarios (May)</li> <li>▪ 4 Regional Public Workshops - Alternative Scenarios (June)</li> <li>▪ Launch online survey regarding scenarios</li> </ul>
July – August 2016	<ul style="list-style-type: none"> <li>▪ Preliminary Recommendations</li> <li>▪ Meetings with Technical and Council Advisory Groups, Master Plan Team</li> <li>▪ Draft Action Plan (August)</li> <li>▪ Public Workshop #6 – Draft Master Plan (August)</li> </ul>
September - October 2016	<ul style="list-style-type: none"> <li>▪ <b>G</b>oals, Objectives and Strategies</li> <li>▪ Action Plan</li> <li>▪ Print and electronic project updates</li> <li>▪ Review by Master Plan Team and Input Groups</li> <li>▪ Master Plan presentation to City boards, commissions, and City Council</li> </ul>

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Figure D-1: Project Schedule

Phase / Task	October	November	December	January	February	March	April	May	June	July	August
<b>Process Development Phase</b>											
Prepare a Process Plan / Schedule and review with PARD Staff; Refine Scope of Services	■										
Review current directions, policies, goals, objectives and reactions to the Needs Assessment with PARD Staff and Master Plan Team	■	■	■	■							
Prepare a Preliminary Public Engagement Plan in cooperation with the COA-PIO		■	■								
Aquatics Advisory Board Approval of PIP (12/1/2015)			■	●	●						
Park Board and Land, Facilities & Programming Sub-Committee Meetings				●	●						
Technical Memorandum No. 1 to summarize previous steps.				■	■						
PARD Aquatics Master Plan Team review meeting				■	■						
<b>Planning Context Phase</b>											
Review Aquatics Needs Assessment	■	■	■	■							
Review of demographic changes, neighborhood conditions, interests, and priorities	■	■	■	■							
Discussions with PARD Staff to assist in the following:											
Facilitate a SWOC Analysis with PARD Staff											
Review Aquatic Programs attendance, costs, locations, etc.											
Review operations and maintenance practices											
Identify health, safety and welfare issues											
Identify existing environmental concerns and sustainability BMP's											
Analysis of current use agreements and partnerships											
Stakeholder Group Orientation Meeting (orientation & identify HSW, environmental, and sustainability concerns)					■						
Technical Memorandum No. 2 to summarize previous steps.					■						
PARD Aquatics Master Plan Team review meeting					■						
<b>Strategic Vision, Goals and Objectives Phase</b>											
Initial City-wide Public Workshop											
Implement SWIM 512 Survey											
SpeakUp Austin, Web Engagement, Community Stakeholder Groups											
Prepare a Draft Vision, Goals, and Objectives											
Technical Memorandum No. 3 to summarize previous steps.											
PARD Aquatics Master Plan Team review meetings											
PARD Park Board and Land, Facilities & Programming Sub-Committee Meeting											
<b>Preliminary Analysis and Recommendations Phase</b>											
Identify alternative scenarios for the overall Aquatics System											
Review with PARD Aquatics Master Plan Team											
Identify and refine stakeholder/user groups and neighborhood groups based upon impacts											
Conduct second round of Stakeholder Meetings (Estimated ten meetings)											
Review meetings with AAB, DRG, TAG											
Regional Public Workshops (4 meetings)											
Prepare a Draft Preliminary Recommendations Report (Technical Memorandum No. 4)											
Review meetings with the PARD Master Plan Team, AAB, DRG, Tech Team											
Public presentation of Preliminary Recommendations											
Public review of Preliminary Recommendations											
AAB, TAG, DRG, and Master Plan Team review											
PARD Park Board and Land, Facilities & Programming Sub-Committee Meeting											
<b>Action Plan Phase</b>											
Refine recommendations based upon review process											
Prepare a Draft Action Plan (Phased Implementation Plan)											
Prepare long term goals, objectives, and priorities											
Prepare an Action Plan organized by Goals, Objectives, and Strategies,											
Submit Draft Action Plan (Technical Memorandum No. 5)											
Review Draft Action Plan with PARD Aquatics Master Plan Team, AAB, DRG, Tech Team, TAG											
PARD Park Board and Land, Facilities & Programming Sub-Committee Meeting											
<b>Final Master Plan Phase</b>											
Refine Action Plan based upon review comments											
Identify potential funding scenarios and mechanisms											
Identify probable cost projections of recommendations (capital, revenues, and operations)											
Prepare a Draft Master Plan to summarize all of the previous phases											
Review of Draft Master Plan with PARD Aquatics Master Plan Team											
Refinements based upon PARD Master Plan Team review											
Land, Facilities & Programming Sub-Committee and Park Board Presentation											
Public Presentations											

■ Review Meeting with PARD Aquatics Master Plan Team and/or others

● Land, Programming and Facilities Sub-Committee; or Park Board Presentation

★ Public Presentation

**Legend**

PIP = Public Engagement Plan  
 SWOC = Strength, Weaknesses, Opportunities, & Challenges Discussion with Staff

**Key Stakeholder Groups Abbreviations**

AAB = Aquatic Advisory Board      TT = Aquatic Division Technical Team      PARB = Park and Recreation Board  
 DRG = District Representatives Group      TAG = Technical Advisory Group      LF&P = Land, Facilities and Programming Sub-Committee of PARB

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# APPENDIX E - INDIVIDUAL POOL RECOMMENDATIONS AND COSTS

## E.1 INTRODUCTION

Appendix E provides more detailed information on the recommendations at each pool and serves as a supplement to Table 8.1 in the main report. The following are recommendations for improvements at each currently operating pool to keep them in operation for the next ten to twenty years and beyond. This appendix provides a detailed summary of the recommended improvements to each of Austin's Neighborhood and Municipal Pools. General notes regarding pool and site recommendations are provided below before the more detailed recommendation by pool.

The criteria for each improvement are based on the pool classifications as described in Chapter 5 or regulatory requirements as described in Chapter 2. As such, the costs are subject to change as a result of follow-up community input for each site. Recommendations are provided for the pool and deck (inside the fence), architecture (bathhouse and pump house), and for site (outside the fence – parking, access, utilities, environmental conditions, etc.). Architecture costs were prepared by Architecture Plus; site costs were prepared by Chan & Partners Civil Engineering (see Appendix F for greater detail); and pool costs were prepared by BCI. Total costs for each site (bottom line of table) include an additional 30% to cover design and engineering, art, permitting, contract management, CIP inspections, PARD project management, etc.

The recommendations are presented in alphabetical order by the recommended pool classification. Because Bartholomew and Westenfield were recently redeveloped, their recommendations are more limited and have a slightly different format. Similarly, Govalle, Rosewood, and Shipe, which are currently undergoing redevelopment, are summarize with projected costs at the beginning of the Neighborhood Pool section.

Each site discussion begins with a summary of the pool, site, and architectural recommendations, which is followed by a more detailed four-part discussion of site recommendations that includes specific recommendations for parking, access/connectivity, drainage, and water service. These four items represent the primary categories of site improvements related to the development of aquatic facilities outside of the fence. This order represent the order in which a visitor will likely interact with or view the site.

### E.1.1 Pool General Notes

1. All pool renovations will include replacement of the pool deck and addition of equipotential bonding to meet electrical code.
2. All wading pools will include zero-depth entry.
3. All new or renovated pools should include water aeration systems that are easily accessed to cool the water.
4. All gravity filter systems will be replaced with high rate sand filters or regenerative media (reduced water usage).
5. Wi-Fi will be installed at each pool to allow for use in pool administration and communication, cash management, maintenance work orders, monitoring of chemical and water level controllers, and ideally for public use.
6. Plan for the plumbing and electrical installation of UV systems in the future as they may become required.
7. Utilize variable frequency drive (VFD) pumps for energy efficiency
8. PARD should continue to evaluate pool shell construction methods and options to meet their specific needs, as well as most preferred coatings.

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## E.1.2 Site General Notes

The site recommendations and costs typically include the following:

1. Bringing the number of parking spaces up to the minimum for the classification of recommended pool
2. Bicycle racks required
3. Parking improvements to paving, curbs, accessible spaces, and lighting
4. Driveway improvements
5. Sidewalks from the parking lot to the bathhouse entrance
6. Wayfinding signage
7. Stormwater detention and quality treatment required
8. Site grading and drainage
9. 4" water service for domestic and pool use
10. 2" water service for irrigation
11. Fire hydrants near the bathhouse with 8" water service
12. 8" sanitary wastewater service

### Access/Connectivity

1. Relocated or rebuilt pools or bathhouses may trigger Access/Connectivity Criteria: COA Sub-Chapter E ordinance may require improved facilities to be required to be as close to the street as possible and a shaded path provided between site elements.
  - Accessible pedestrian and bicycle connections from adjacent street right-of-way to bathhouse entrance
  - Sidewalks with shading from the street right-of-way to the bathhouse entrance
2. General Access/Connectivity Improvements: Install new door and wayfinding signage.

### Buildings General Notes

1. If the existing pool size remains the same, the existing number of plumbing fixtures can by code remain the same.
2. If the existing pool is modified or enlarged, calculations for new plumbing fixtures required are based on 1 person per 50ft<sup>2</sup> of water which has been acceptable to the Local Authority Having Jurisdiction (AHJ) recently in other COA pool replacements.
3. The required number of plumbing fixtures is calculated per the Texas Department of State Health Services (DSHS) 25 TAC, 265.201(f)(1).
4. While it is not noted on each pool bathhouse, the existing plumbing fixtures on the whole do not meet current ADA requirements.

## E.2 REGIONAL AQUATIC CENTERS

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Two types of Regional facilities are recommended, which will vary greatly based upon the capabilities of the site and the desired features of the region of the City. The primary difference between the type types will be the presence of 50-meter length for the larger facilities, which lends to more fitness, exercise, and competition uses. Both types would include a room for party rentals, training, and meetings. More details can be found in Chapter 5.

### Typical Regional Aquatic Center Features

- Group Pavilion
- Shade
- Training
- Party Room
- Concessions
- Offices/space
- Storage
- Bathhouse/Family Restroom
- Water play features per community input

## E.2.1 Bartholomew

New construction, not a part of this report.

Final project cost including all Change Orders, General Conditions, Bonds, Fee, etc. \$5,766,121.11

### Site Recommendations (1800 E. 51st Street)

#### 1. SPC-2011-0320C

- Bartholomew Pool was recently renovated under City of Austin Site Development Permit SPC-2011-0320C and reopened in June of 2014. According to the SPC-2011-0320C permit drawings:
  - Parking: 153 standard spaces + 6 accessible spaces + 18 bicycle spaces

#### 2. Access/Connectivity

- Sidewalk along north side of East 51st Street, tree shaded adjacent to pool facility improvements
- Sidewalk along main entrance driveway connecting 51st Street ROW
- Pedestrian and bicycle connection from adjacent parkland
- Limited curb cuts

#### 3. Drainage

- Existing stormwater detention pond
- New water quality treatment pond for 40.89% impervious cover at minimum required capture depth of 0.71". Required Water Quality Volume (WQV) = 3840.2 cf; provided WQV = 5287.0 cf.

#### 4. Water Service

- 4" tap into existing water main along East 51st Street, 4" water line, 4" domestic water meter with backflow preventer
- 2" tap into existing 6" reclaimed water service off the reclaimed water main along East 51st Street, 2" irrigation meter with backflow preventer
- Existing 2 fire hydrants off water mains along East 51st Street, on south side of roadway, directly across street from pool facility

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## 5. Other Recommendations

No site civil improvements outside the pool perimeter fence are required, unless new/redeveloped impervious cover is created associated with pool improvements. If there is new/redeveloped impervious cover associated with pool improvements, then:

- Construct flow splitter structure, \_ cf detention volume structure, \_ cf water quality treatment structure, and outfall structure for \_ sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping to collect runoff from the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

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## E.2.2 Balcones

### Pool Recommendations

- Upgrade and expand the pool to serve as a Regional 25 Meter Aquatic Center
- Completely reconfigure the pool to develop a Regional Family Aquatic Center similar to the model provided in Chapter 5

### Site Recommendations

- Expand parking to 150 spaces
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- New driveway
- Install stormwater system and detention

### Existing Architectural Features

- Group Pavilion: None
- Shade Structure: No built structures, a few large trees.
- Training/ Party Room: None
- Concessions: None, used by staff for storage
- Office: None
- Storage: Approx. 40sf (former guard/ admission counter) Space is inadequate for staff work
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

### Building Repair Recommendations

- Roof in need of immediate replacement.
- Paint all exterior trim.
- Stall partitions in need of replacing
- Recommend installing stainless steel plumbing fixtures
- Shower fixtures in need of replacing
- Accessories in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in need of refurbishing
- Add Training/ Party Room
- Add Concessions
- Add Offices
- Add ADA and family restrooms
- Pump house in need of immediate roof replacement
- Pump house needs exterior trim painted immediately and light fixtures replaced

### Building Recommendations

- Total pool replacement recommended. Major refurbishment of existing building. Construct new building to provide missing features.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	3,501	14,000	\$210,000
Pool	4,583	9,000	\$1,800,000
Pool House (to include a training/ party room, concessions, office and 2 new family restrooms)	1,240	4,500	\$600,000
Pump House	580	2,500	\$250,000
Total Impervious Cover	9,904	30,000	N/A
Total Site Costs			\$2,850,000
Construction Cost Totals			\$5,710,000
Total with Owner Costs (add 30%)			\$7,423,000

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	900	1	2	2	2
Women		3	0	2	2
<b>Required per existing pool configuration (92 Occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (180 Occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1

### Site Recommendations (12017 Amherts Drive)

#### 1. Parking

##### a. Existing Parking

- 69 standard spaces
- 3 accessible spaces with 1 access aisle space
- 4 bicycle racks

##### b. Parking Criteria: 150 spaces minimum (existing 69 + 3)

- 150 parking spaces requires 5 accessible parking spaces
- 150 parking spaces requires 8 bicycle parking spaces (5% x 150 spaces) + 1 for Sub-Chapter E (additional 10%) = 9 total

##### c. Parking Recommendations

- Expand curbed parking from 73 spaces (69 standard spaces + 3 accessible spaces + 1 access aisle space) to 153 spaces (145 standard spaces + 5 accessible spaces + 3 access aisle spaces) = approx. 33,120 sf (80 spaces x 414 sf/space) expansion to the west of the existing parking lot.
- Construct 2 new accessible parking spaces + access aisles adjacent to the existing accessible space in front of the main entrance. Restripe existing accessible parking space with added access aisle. Add new signage to 3 accessible parking spaces.
- Remove the existing bicycle rack blocking sidewalk and install 2 new bicycle racks for total 9 bicycle spaces.

- Install wheel stops to 3 accessible spaces.
- Install 7 (80 spaces x 0.08 lights/space) new parking lot lights.

## 2. Access/Connectivity

### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Amherst Drive ROW to front entrance
- Accessible bicycle connection from Amherst Drive ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to existing site trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Duval Road, Scribe Drive, and Stony Drive)

### b. Access/Connectivity Recommendations

- Construct new 40' wide two-way driveway (reinforced concrete within Amherst Drive ROW and asphalt outside the ROW), with curb and gutter, from Amherst Drive to parking lot, including 8' wide bike lane.
- Construct new 5' wide accessible sidewalk from accessible parking spaces to front entrance.
- Construct new 5' side sidewalk from Amherst Drive ROW sidewalk to front entrance along main entrance drive with tree shading.
- Construct new 10' wide granite gravel connections from front entrance to existing hike & bike trails.
- Construct new 10' wide granite gravel pedestrian and bicycle access connection to Duval Road sidewalk, to Scribe Road sidewalk, and to Stony Drive sidewalk.
- Install wayfinding signage

## 3. Drainage

### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater curb inlets in the parking lot expansion, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

### b. Drainage Recommendations

- New/Redeveloped Impervious Cover:

Parking Expansion	33,100 sf
Exterior Sidewalks/Flatwork	3,800 sf
Pool Decks	14,000 sf
Building Roofs	7,000 sf
Total IC for Detention and WQ	57,900 sf
Pool	9,000 sf

- Construct flow splitter structure, 11,580 cf (0.20cf/sf of IC) detention volume structure, 6,280 cf (IC x 1.3") water quality treatment structure, and outfall structure for 57,900 sf of new/redeveloped impervious cover

- 
- Construct 10' curb inlets and 18" storm drain collector piping within the parking lot expansion
  - Construct site grading to drain runoff to storm drain inlets

#### **4. Water Service**

##### **a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

##### **b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Amherst Drive, install 4" domestic water meter with backflow preventer within Amherst Drive ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Amherst Drive, install 2" irrigation meter with backflow preventer within Amherst Drive ROW, connect to site irrigation system.
- Construct new 8" tap into water main along Amherst Drive, install 8" backflow preventer within Amherst Drive ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Construct new 8" wastewater pipe from pool site to wastewater main within Amherst Drive, install new 48" manhole at connection to wastewater main.

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## E.2.3 Garrison

### Pool Recommendations

- Upgrade and expand the pool to serve as a Regional 50 Meter Aquatic Center
- Replace the main pool tank but maintain its general configuration
- Add a slide and climbing wall (or selected amenities per community input) to the main pool
- Replace the wading pool with a more family-oriented activity pool with interactive water play features
- Replace the pool deck

### Site Recommendations

- Expand parking to 150 spaces
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- New driveway
- Install stormwater system and detention

### Existing Architectural Features

- Group Pavilion: None
- Shade Structure: None, other than some perimeter trees
- Training/ Party Room: None
- Concessions: None, One soda machine in an enclosed building which can be closed off with a garage style door
- Office: None, Existing admission/ ticket area: Approx. 400 sf
- Storage: Existing vending/ storage: Approx. 300 sf
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump house: Below the pool

### Building Repair Recommendations

- Roof and soffit in need of replacing
- Tile finish is in need of replacing
- Toilet partitions in need of replacing
- Stainless steel toilet and lavatory plumbing fixtures could be re-used
- Shower fixtures in need of replacing
- Accessories in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Group Pavilion
- Add Shade Structure
- Add Training/ Party Room
- Add Office
- Add ADA and Family Restrooms
- Pump house needs extensive envelope and roof maintenance and repair

- Doors and wall louvers of pump house need replacing

### Building Recommendations

Major renovation of existing facility, gut all non-structural interior walls, fixtures and furnishings. Construct an addition as required to provide ADA compliance and family toilet, existing open area dressing areas to be roofed, buildings to be repainted and refurbished.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	8,118	14,000	\$210,000
Pool	14,486	14,000	\$2,800,000
Pool House (to include a training/ party room, concessions, office and 2 new family restrooms)	1,250	4,500	\$800,000
Pump House	575	3,000	\$250,000
Total Impervious Cover	24,429	35,500	
Total Site Costs			\$3,480,000
Construction Cost Totals			\$7,540,000
Total with Owner Costs (add 30%)			\$9,802,000

### Bathroom plumbing fixture requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	550	1	2	2	1
Women		3	0	2	1
<b>Required per existing pool configuration (290 Occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2
<b>Required when pool is replaced (280 Occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2

### Site Recommendations - If not used for an indoor facility (6001 Manchaca Road)

#### 1. Parking

##### a. Existing Parking

- 36 standard spaces
- 3 accessible spaces with 2 access aisle spaces
- 0 bicycle racks

##### b. Parking Criteria: 150 spaces minimum (existing 36 + 3)

- 150 parking spaces requires 5 accessible parking spaces
- 150 parking spaces requires 8 bicycle parking spaces (5% x 150 spaces) + 1 for Sub-Chapter E (additional 10%) = 9 total

##### c. Parking Recommendations

- Expand parking from 41 spaces (36 standard spaces + 3 accessible spaces + 2 access aisle spaces) to 153 spaces (145 standard spaces + 5 accessible spaces + 3 access aisle spaces) = approx. 46,368 sf (112 spaces x 414 sf/space) expansion to the north of the existing parking lot.

- Construct 2 new accessible parking spaces + access aisles adjacent to the existing 3 accessible spaces. Restripe existing 3 accessible parking spaces. Add new signage to existing 3 accessible parking spaces.
- Install 5 bicycle racks for 9 bicycle spaces
- Install wheel stops to 5 accessible spaces
- Construct 2,600 lf (153 spaces x 17 lf/space) of new curbs around perimeter of parking lot
- Install 9 (112 spaces x 0.08 lights/space) new parking lot lights

## 2. Access/Connectivity

### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Manchaca Road ROW to front entrance.
- Accessible bicycle connection from Manchaca Road ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to existing site trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Parkside Lane)

### b. Access/Connectivity Recommendations

- Construct new 40' wide two-way driveway (reinforced concrete within Manchaca Road ROW and asphalt outside the ROW), with curb and gutter, from Manchaca Road to parking lot, including 8' wide bike lane
- Construct new 5' wide accessible sidewalk from accessible parking spaces to front entrance
- Construct new 10' wide granite gravel connections from front entrance to existing hike & bike trails
- Reconstruct 10' wide pedestrian and bicycle sidewalk access from front entrance to Parkside Lane
- Install wayfinding signage

## 3. Drainage

### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater curb inlets in the parking lot expansion, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

### b. Drainage Recommendations

- New/Redeveloped Impervious Cover

Parking Expansion	59,200	sf
Exterior Sidewalks/Flatwork	3,500	sf
Pool Decks	14,000	sf
Building Roofs	7,500	sf
Total IC for Detention and WQ	84,200	sf
Pool	14,000	sf

- Construct flow splitter structure, 16,840 cf (0.2cf/sf of IC) detention volume structure, 9,130 cf (IC

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x 1.3") water quality treatment structure, and outfall structure for 84,200 sf of new/redeveloped impervious cover

- Construct 10' curb inlets and 18" storm drain collector piping within the parking lot expansion
- Construct site grading to drain runoff to storm drain inlets

#### **4. Water Service**

##### **a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

##### **b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Manchaca Road, install 4" domestic water meter with backflow preventer within Manchaca Road ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Manchaca Road, install 2" irrigation meter with backflow preventer within Manchaca Road ROW, connect to site irrigation system.
- Construct new 8" tap into water main along Manchaca Road, install 8" backflow preventer within Manchaca Road ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- There is already an 8" wastewater pipe from pool site to wastewater main within Manchaca Road.

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## E.2.4 Northwest

### Pool Recommendations

- Upgrade and expand the pool to serve as a Regional 50 Meter Aquatic Center
- Replace the main pool tank, but maintain its general configuration
- Add a slide and climbing wall to the main pool
- Replace the wading pool with a more family-oriented activity pool with interactive water play features
- Replace the pool deck
- Replace the filtration system

### Site Recommendations

- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- New driveway
- Install stormwater system and detention

### Existing Architectural Features

- Group Pavilion: None
- Shade Structure: 4 areas with bleachers or picnic tables that have a corrugated tin roof structure for shade
- Training/ Party Room: None
- Concessions: None, Vending machines under one shade structure
- Office: None
- Storage: Misc. Storage area behind the ticket counter, approx. 60 sf
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Stand alone building with a storage room addition
- Existing admission/ ticket counter: Approx. 300sf

### Building Repair Recommendations

- Tile finish is in need of replacing
- Stall partitions in need of replacing
- Lights in need of replacement/upgrade
- Shower fixtures in need of replacing
- Accessories in need of replacing
- All shade structure roof need replacing
- All shade structures need painting
- Add Training/Party area
- Add Concessions area
- Add Office
- Add Storage
- Add ADA and family restrooms
- Remove and rebuild pump house addition

- Pump house doors, wall louvers and trim need painting

### Building Recommendations

- Major renovation of existing facility, gut all fixtures and furnishings, total renovation of Men's and Women's restrooms, existing open area dressing areas to be roofed. Construct new building for training/ party, concessions, office and ADA and family restrooms.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	10,512	14,000	\$210,000
Pool	13,392	14,000	\$2,800,000
Pool House (to include a training/ party room, concessions, office and 2 new family restrooms)	2,610	4,500	\$800,000
Pump House	580	3,000	\$250,000
Total Impervious Cover	27,094	35,500	
Total Site Costs			\$2,620,000
Construction Cost Totals			\$6,680,000
Total with Owner Costs (add 30%)			\$8,684,000

### Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	800	2	2	2	3
Women		5	0	2	2
Unisex	0	1	0	1	0
<b>Required per existing pool configuration (268 Occupants)</b>					
Men	-	1	1	2	2
Women		3	0	2	2
<b>Required when pool is replaced (280 Occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2

### Site Recommendations (7000 Ardath Street)

#### 1. Parking

##### a. Existing Parking

- 186 standard spaces
- 5 accessible spaces
- 4 bicycle racks (7 bicycles per rack)

##### b. Parking Criteria:

- No parking lot expansion (150 standard spaces minimum; 186 spaces existing)
- No accessible parking expansion (5 accessible spaces minimum; 5 spaces existing)
- No bicycle parking expansion (9 bicycle spaces minimum; 28 spaces existing)

##### c. Parking Recommendations:

- Restripe parking spaces
- Install wheel stops for 5 accessible parking spaces

## 2. Access/Connectivity

### a. Access/Connectivity Criteria (Sub-Chapter E)

- Accessible pedestrian connection from Ardath Street/Albata Avenue ROW to front entrance
- Accessible bicycle connection from Ardath Street/Albata Avenue ROW to front entrance
- Accessible sidewalk along Ardath Street/Albata Avenue ROW frontage with pool site
- Accessible pedestrian and bicycle connection from front entrance to existing park trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (to Pegram Avenue and to Ellise Avenue)

### b. Access/Connectivity Recommendations:

- Construct new 5' wide sidewalk within Ardath Street/Albata Avenue ROW frontage with pool site.
- Construct new 5' wide sidewalks from new Ardath Street/Albata Avenue ROW sidewalk to front entrance
- Construct new 10' wide granite gravel trail connections front entrance to existing park trails
- Construct new 5' wide sidewalk connections from Ardath Street/Albata Avenue ROW fronting pool site to Pegram Avenue and to Ellise Avenue
- Reconstruct the main entrance ramp and its handrails to be ADA-compliant
- Reconstruct the exits to be ADA compliant
- Construct wayfinding signage

## 3. Drainage

### a. Drainage Criteria:

- Site located in 100-year floodplain of Shoal Creek
- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater curb inlets in the parking lot expansion, storm drain piping to stormwater detention/water quality treatment flow splitter structure, discharge piping, and outfall structure

### b. Drainage Recommendations:

- New/Redeveloped Impervious Cover:

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	3,000	sf
Pool Decks	14,000	sf
Building Roofs	7,500	sf
Total IC for Detention and WQ	24,500	sf
Pool	600	sf

- Construct flow splitter structure, 4,900 cf (0.20cf/sf of IC) detention volume structure, 2,660 cf (IC x 1.3") water quality treatment structure, and outfall structure for 24,500 sf of new/redeveloped impervious cover.

- 
- Construct new storm drain inlets and 18" piping to convey runoff to new flow splitter structure.
  - Construct site grading to drain runoff to storm drain inlets.

#### **4. Water Service**

##### **a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

##### **b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Ardath Street, install 4" domestic water meter with backflow preventer within Ardath Street ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Ardath Street, install 2" irrigation meter with backflow preventer within Ardath Street ROW, connect to site irrigation system
- Construct new 8" tap into water main along Ardath Street, install 8" backflow preventer within Ardath Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to wastewater main within Ardath Street, install new 48" manhole at connection to wastewater main

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## E.3 INDOOR FACILITIES

A community Indoor Pool would be the smaller of two potential indoor facilities, provided on the opposite side of Austin from the Premier Indoor Aquatic Center in order to provide equity and easy access for all Austin residents. This facility would be geared to local uses such as lifeguard training, swim lessons, rental use, recreational lap swimming, swim team practices, and much more. The main pool would be 25 yards by 8 or more lap lanes. See Chapter 5 for more details.

### Typical Community Indoor Aquatic Center Features

- Spectator area
- Training
- Party Room
- Office
- Storage
- Bathhouse/Family Restroom

### E.3.1 Mabel Davis Community Indoor Pool

#### Pool Recommendations

- Develop a Community Indoor Pool facility to serve the southern portion of Austin. Main features will include a 25 yard by 8 lane lap pool, possibly a 30' by 40' warm water pool, diving boards, training/party room, office, and outdoor patio area.

#### Site Recommendations

- Expand parking to 100 spaces
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- New driveway
- Install stormwater system and detention
- Parking lot lighting

#### Existing Architectural Features

- Spectator Area: None
- Existing pump house: None
- Training/ Party Room: None
- Office: None
- Storage: Approx. 120sf One room at the entry which can be closed off by a garage style coiling door
- Bathhouse/Family Restrooms: No ADA or family restroom
- Pump House: None
- Existing admission/ ticket area: Approx. 210sf includes storage closet off of main admission room

#### Building Repairs Identified

- Roof and soffit in need of immediate replacement
- Toilet partitions in need of replacing
- Restrooms need total renovation

- Accessories in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Spectator Area
- Add Training/ Party Room
- Add Office
- Add ADA and Family Restrooms

### Building Recommendations

- Recommend replacing with newer, smaller indoor facility.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	7,830	10,000	\$150,000
Pool	11,717	6,150	\$1,230,000
Natatorium to Include bathhouse facilities, a training/party room, office and 2 new family restrooms)	2,185	3,000	\$7,800,000
Pump House	0	1,500	Included above
Total Impervious Cover	21,732	20,650	
Total Site Costs			\$2,490,000
Construction Cost Totals			\$7,800,000
Total with Owner Costs (add 30%)			\$10,140,000†

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	490	2	1	2	1
Women		3	0	2	1
<b>Required per existing pool configuration (268 Occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2
<b>Required when pool is replaced (280 Occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1

### Site Recommendations (3427 Parker Lane)

#### 1. Parking

##### a. Existing Parking

- 88 standard spaces
- 5 accessible spaces
- 3 bike racks

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**b. Parking Criteria: 100 spaces minimum (existing 88 + 3)**

- 100 parking spaces requires 4 accessible parking spaces
- 100 parking spaces requires 5 bicycle parking spaces (5% x 100) + 1 for Sub-Chapter E (additional 10%) = 6 total

**c. Parking Recommendations:**

- Expand parking from 96 spaces (88 standard spaces + 5 accessible spaces + 3 access aisle spaces) to 102 spaces (96 standard spaces + 4 accessible spaces + 2 access aisle spaces) = approx. 2,484 sf (6 spaces x 414 sf/space) expansion to the south of the existing parking lot.
- Construct 1 new accessible parking space adjacent to the existing 3 accessible spaces. Add new signage to existing 5 accessible parking spaces.
- No additional bicycle racks are needed. Relocate existing bicycle racks to not block accessible route.
- Install wheel stops to 6 accessible spaces.
- Construct 102 lf (6 spaces x 17 lf/space) of new curbs around perimeter of parking lot.
- Install 9 (102 spaces x 0.08 lights/space) new parking lot lights.

**2. Access/Connectivity****a. Access/Connectivity Criteria: Sub-Chapter E**

- Accessible pedestrian connection from Parker Lane ROW to front entrance.
- Accessible bicycle connection from Parker Lane ROW to front entrance.
- Accessible pedestrian connection from accessible parking to front entrance.
- Accessible pedestrian and bicycle connection from front entrance to existing site trails.
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (E. Ben White Boulevard and Parker Lane).

**b. Access/Connectivity Recommendations**

- Construct new 40' wide two-way driveway (reinforced concrete within Parker Lane ROW and asphalt outside the ROW), with curb and gutter, from Parker Lane to parking lot, including 8' wide bike lane.
- Construct new 5' wide accessible sidewalk from accessible parking spaces to front entrance.
- Construct new 10' wide granite gravel connections from existing park trails to E. Ben White Boulevard and to Parker Lane.
- Construct 5' wide pedestrian sidewalk from Parker Lane ROW sidewalk to main entrance.
- Install new handrails along front entrance steps.
- Install wayfinding signage.

**3. Drainage****a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover.
- Provide stormwater quality treatment for runoff from new impervious cover.
- Provide site grading, stormwater curb inlets in the parking lot expansion, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

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## b. Drainage Recommendations

- New/Redeveloped Impervious Cover

Parking Expansion	13,340	sf
Exterior Sidewalks/Flatwork	2,500	sf
Building Roofs*	20,700	sf
Total IC for Detention and WQ	36,540	sf

\*Note: Indoor Pool

- Construct flow splitter structure, 7,130 cf (0.2cf/sf of IC) detention volume structure, 3,960 cf (IC x 1.3") water quality treatment structure, and outfall structure for 36,540 sf of new/redeveloped impervious cover.
  - Construct 10' curb inlets and 18" storm drain collector piping within the parking lot expansion.
  - Construct site grading to drain runoff to storm drain inlets.

## 4. Water Service

### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

### b. Water Service Recommendations

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Parker Lane, install 4" domestic water meter with backflow preventer within Parker Lane ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Parker Lane, install 2" irrigation meter with backflow preventer within Parker Lane ROW, connect to site irrigation system.
- Construct new 8" tap into water main along Parker Lane, install 8" backflow preventer within Parker Lane ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Construct new 8" wastewater pipe from pool site to wastewater main within Parker Lane, install new 48" manhole at connection to wastewater main.

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## E.4 COMMUNITY POOLS

Community Pools will be somewhat larger than Neighborhood Pools and have additional amenities to serve a larger market area or roughly a ten-minute drive. These facilities may charge a fee and will be designed to better host programs and swim teams. See Chapter 5 for additional details.

### Typical Community Pool Architectural Features

- Shade
- Training/ Party Room
- Office
- Storage
- Bathhouse/ Family Restroom

### E.4.1 Dick Nichols

#### Pool Recommendations

- This pool is currently larger in size than the typical characteristics of a Community Pool
- Add a water amenity per community input
- Add zero-depth access to the wading pool
- Add shade structures
- Replace pool deck when warranted
- Long term replace the pool tank
- Pool heaters were installed in the past. Analyze potential to start using them if warranted for off-season use.

#### Site Recommendations

- No additional parking required
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention
- Existing Architectural Features
- Shade Structure: (2) larger steel frame with corrugated steel roof structures for 2-3 picnic tables and (1) smaller shading a bench.
- Training/ Party Room: None
- Office: None
- Storage: Approx. 120sf (included in pool house SF) lifeguard storage. Additional vending/ storage of 120sf (included in pool house SF).
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

#### Building Repair Recommendations

- Roof in need of replacing within 3 years
- Repair/ replacement of the wood structure for the restroom roof
- Some of the lights need replacing
- Accessories in need of replacing

- Door hardware in need of replacing
- Sinks in need of replacing
- Building in need of minor repair
- Building in need of painting and refurbishing
- Add Training/ Party Room
- Add Office
- Add ADA and family restrooms
- Pump house roof in need of replacing in the near future
- Pump house in need of moderate maintenance to structure and building

### Building Recommendations

- Minor changes. Construct new building for office, family restrooms and training/ party room

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	8,775	8,775	\$75,000
Pool	10,463	10,463	\$1,980,000
Pool House (to include a training/ party room, office and 2 new family restrooms)	2,600	3,000	\$250,000
Pump House	480	3,500	\$25,000
Total Impervious Cover	22,318	18,400	
Total Site Costs			\$1,390,000
Construction Cost Totals			\$3,720,000
Total with Owner Costs (add 30%)			\$4,836,000

### Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	1,500	2	3	2	5
Women		4	0	2	5
<b>Required per existing pool configuration (210 Occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2
<b>Required when pool is replaced (198 Occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1

### Site Recommendations (8011 Beckett Road)

#### 1. Parking

##### a. Existing Parking

- 52 standard spaces
- 5 accessible spaces with \_ access aisle spaces
- 2 bicycle racks

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**b. Parking Criteria: 50 spaces minimum (existing 52 + 5)**

- 57 parking spaces requires 3 accessible parking spaces
- 57 parking spaces requires 3 bicycle parking spaces (5% x 57) + 1 for Sub-Chapter E (additional 10%) = 4 total

**c. Parking Recommendations**

- No additional standard parking spaces are required
- No additional accessible parking spaces are required
- No additional bicycle racks are required
- Restripe existing parking lot

**2. Access/Connectivity**

**a. Access/Connectivity Criteria: Sub-Chapter E**

- Accessible pedestrian connection from Beckett Road ROW to front entrance.
- Accessible bicycle connection from Beckett Road ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to existing site trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Davis Lane, Beckett Road, Vail Valley Drive, Convict Hill Road)

**b. Access/Connectivity Recommendations:**

- Construct new 5' wide accessible sidewalk along main entrance drive from Beckett Road to front entrance
- Construct new 10' wide granite gravel connections from front entrance to existing hike & bike trails
- Construct 10' wide pedestrian and bicycle granite gravel connections to Davis Lane, Beckett Road, Vail Valley Drive, Convict Hill Road
- Install new handrails at main entrance steps
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater curb inlets in the parking lot expansion, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations:**

- New/Redeveloped Impervious Cover

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	2,500 sf
Pool Decks	5,000 sf
Building Roofs	500 sf
IC for Detention and WQ	8,000 sf
Pool	0 sf

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- Construct flow splitter structure, 1,600 cf (0.2cf/sf of IC) detention volume structure, 870 cf (IC x 1.3") water quality treatment structure, and outfall structure for 8,000 sf of new/redeveloped impervious cover.
  - Construct 10' curb inlets and 18" storm drain collector piping within the entrance driveway expansion
  - Construct site grading to drain runoff to storm drain inlets

#### **4. Water Service**

##### **a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

##### **b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Beckett Road, install 4" domestic water meter with backflow preventer within Beckett Road ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Beckett Road, install 2" irrigation meter with backflow preventer within Beckett Road ROW, connect to site irrigation system
- Construct new 8" tap into water main along Beckett Road, install 8" backflow preventer within Beckett Road ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to wastewater main within Beckett Road, install new 48" manhole at connection to wastewater main

### **E.4.2 Dittmar**

#### **Pool Recommendations**

- Upgrade to a Community Pool. The current size is slightly smaller than the range of a Community Pool
- Replace the pool with the model Community Pool
- Replace filtration system

#### **Site Recommendations**

- No additional parking required
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention

#### **Existing Architectural Features**

- Shade Structure: (2) fabric shade structures over shallower end of pool and an additional (3) over the grass around the pool perimeter.
- Training/ Party Room: None
- Office: Appears to be a former ticket/admission area which could be repurposed as an office but is currently used for storage. Attached to the pool house and located at the entry to the pool.
- Storage: None

- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

### Building Repair Recommendations

- Roof and soffit in need of replacing within the next 5-10 years
- Doors needed for toilet stalls
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Training/ Party Room
- Add Office
- Add Storage
- Add ADA and family restrooms
- Pump house roof in need of replacing in next 10 years
- Pump house in need of minor maintenance/repair/new door

### Building Recommendations

- Total pool replacement recommended, refurbish existing building. Construct new building to provide missing features.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	5,130	9,000	\$135,000
Pool	6,531	7,000	\$1,400,000
Pool House (to include a training/ party room, office and 2 new family restrooms)	1,210	3,000	\$400,000
Pump House	176	800	\$25,000
Total Impervious Cover	13,047	19,800	
Total Site Costs			\$1,820,000
Construction Cost Totals			\$3,780,000
Total with Owner Costs (add 30%)			\$4,914,000

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	1,210 *	1	2	2	2
Women		3	0	2	2
* SF includes 1 person restrooms which serve the adjacent park					
<b>Required per existing pool configuration (131 Occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1
<b>Required when pool is replaced (140 Occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1

### Site Recommendations (1009 W. Dittmar Road)

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## 1. Parking

### a. Existing Parking

- 108 standard spaces
- 2 accessible spaces with 3 access aisle spaces
- 6 bicycle racks

### b. Parking Criteria: 50 spaces minimum (existing 108 + 2)

- 110 parking spaces requires 5 accessible parking spaces
- 110 parking spaces requires 6 bicycle parking spaces (5% x 110) + 1 for Sub-Chapter E (additional 10%) = 7 total

### c. Parking Recommendations

- Reconstruct existing parking to provide 5 new accessible parking spaces with 3 access aisles

## 2. Access/Connectivity

### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Dittmar Road ROW to front entrance.
- Accessible bicycle connection from Dittmar Road ROW to front entrance.
- Accessible pedestrian connection from accessible parking to front entrance.
- Accessible pedestrian and bicycle connection from front entrance to existing site trails.
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties.

### b. Access/Connectivity Recommendations

- Reconstruct flatwork and handrails at main entrance to be TAS-compliant
- Construct new 5' wide accessible sidewalk from accessible parking spaces to main entrance
- Construct new 10' wide granite gravel connections along fire lane from parking lot to existing hike & bike trail at end of fire lane
- Install wayfinding signage

## 3. Drainage

### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater curb inlets, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

### b. Drainage Recommendations

- New/Redeveloped Impervious Cover

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	5,200	sf
Pool Decks	9,000	sf
Building Roofs	3,800	sf

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IC for Detention and WQ	18,000 sf
Pool	7,000 sf

- Construct flow splitter structure, 3,600 cf (0.2cf/sf of IC) detention volume structure, 1,950 cf (IC x 1.3") water quality treatment structure, and outfall structure for 18,000 sf of new/redeveloped impervious cover.
- Construct area drain inlets and 18" storm drain collector piping around the pool improvements to convey runoff from new impervious cover to the new stormwater flow splitter structure.
- Construct site grading to drain runoff to storm drain inlets

#### 4. Water Service

##### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

##### b. Water Service Recommendations

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Dittmar Road, install 4" domestic water meter with backflow preventer within Dittmar Road ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Dittmar Road, install 2" irrigation meter with backflow preventer within Dittmar Road ROW, connect to site irrigation system.
- Construct new 8" tap into water main along Manchaca Road, install 8" backflow preventer within Manchaca Road ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Construct new 8" wastewater pipe from pool site to wastewater main on south side of creek to south of site, install new 72" manhole at connection to wastewater main.

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## E.4.3 Dove Springs

### Pool Recommendations

- Upgrade to a Community Pool. The current size is larger than the range of a Community Pool
- Replace the pool with the model Community Pool, but with a configuration the same size as the existing
- Provide zero depth access to the wading pool
- Replace filtration system
- Replace pool deck

### Site Recommendations

- No additional parking required
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention

### Existing Architectural Features

- Shade structure: (1) fabric shade structure over the grass on the east side of the large pool and (1) corrugated steel roof structure at the south end of the wading pool.
- Training/ Party Room: None
- Office: None
- Storage: Approx. 120sf (included in pool house SF) in Women's pool house. No vending machines currently and is being used for storage.
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

### Building Repair Recommendations

- Roof and soffit in need of immediate replacing
- Repair/ replacement to the wood structure for the restroom roof
- Shower fixtures in need of replacing
- Some of the lights need replacing
- Accessories in need of replacing
- Toilet stall doors need replacing
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Training/ Party Room
- Add Office
- Add ADA and family restrooms
- Pump house roof in need of immediate replacement
- Pump house in need of moderate maintenance to structure and building

### Building Recommendations

- Minor addition to pool, refurbish existing building. Construct new building for family restrooms, office and training/ party room.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	7,335	8,000	\$120,000
Pool	11,365	10,600	\$2,120,000
Pool House (to include a training/ party room, office and 2 new family restrooms)	1,716	1,716	\$350,000
Pump House	165	800	\$25,000
Total Impervious Cover	20,581	21,116	
Total Site Costs			\$1,790,000
Construction Cost Totals			\$4,405,000
Total with Owner Costs (add 30%)			\$5,726,500

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	1,716	2	3	2	6
Women		4	0	2	6
<b>Required per existing pool configuration (228 Occupants)</b>					
Men	-	1	2	2	2
Women		3	2	2	2
<b>Required when pool is replaced (212 Occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2

### Site Recommendations (8501 Ainez Drive)

#### 1. Parking

##### a. Existing Parking

- 58 standard spaces
- 4 accessible spaces with 3 access aisle spaces
- 2 bicycle racks

##### b. Parking Criteria: 50 spaces minimum (existing 58 + 4)

- 62 parking spaces requires 3 accessible parking spaces
- 62 parking spaces requires 4 bicycle parking spaces (5% x 62) + 1 for Sub-Chapter E (additional 10%) = 5 total

##### c. Parking Recommendations:

- Install 5 (62 spaces x 0.08 lights/space) new parking lot light
- No additional standard parking spaces are required
- No additional accessible parking spaces are required
- No additional bicycle racks are required

#### 2. Access/Connectivity

##### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Ainez Drive ROW to front entrance
- Accessible bicycle connection from Ainez Drive ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to existing site trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties and adjacent parkland (Ainez Drive, Hickory Drive)

**b. Access/Connectivity Recommendations**

- Reconstruct existing 5' wide sidewalk to be TAS-compliant from main driveway to front entrance
- Reconstruct existing 5' wide sidewalk to be TAS-compliant from accessible parking to front entrance
- Construct new 10' wide granite gravel connections from front entrance to existing park trails
- Construct 10' wide pedestrian and bicycle granite gravel connections to Ainez Drive, Hickory Drive
- Reconstruct flatwork at front entrance to be TAS-compliant
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater curb inlets in the parking lot expansion, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	3,000	sf
Pool Decks	8,000	sf
Building Roofs	2,500	sf
IC for Detention and WQ	13,500	sf
Pool	0	sf

- Construct flow splitter structure, 2,700 cf (0.2cf/sf of IC) detention volume structure, 1,470 cf (IC x 1.3") water quality treatment structure, and outfall structure for 13,500 sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping around the new impervious cover of the pool improvements to drain to the new stormwater flow splitter structure
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- 
- Provide 4" water line/meter for domestic water service
  - Provide 2" water line/meter for irrigation water service
  - Provide 2 fire hydrants close to the building and 8" fire line
  - Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into existing 8" water main on site, install 4" domestic water meter with backflow preventer to replace existing water meter at the pool site, install 4" domestic water pipe to pool site
- Construct new 2" tap into existing 8" water main on site, install 2" irrigation meter with backflow preventer at the pool site, connect to site irrigation system
- Construct new 8" tap into existing water main on site, install 8" backflow preventer at the pool site, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Pool already has an 8" wastewater line that discharges to the existing in-park private wastewater collector

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## E.4.4 Givens

### Pool Recommendations

- Replace the pool with the model Community Pool
- Replace filtration system
- Replace pool deck

### Site Recommendations

- No additional parking required
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention

### Existing Architectural Features

- Shade structure: No shade except for a few trees around the pool perimeter and about 20 linear ft. of corrugated metal steel roofing structure near the diving area
- Training/ Party Room: None
- Office: None
- Storage: None
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Below the pool
- Maintenance Room: Former single toilet room

### Building Repair Recommendations

- Repurpose unused information counter area to possibly an office and the former restroom off this area to storage.
- Roof and soffit in need of replacing
- Tile finish is in need of replacing
- Toilet partitions in need of replacing
- Shower stalls in need of complete renovation
- All sinks need replacing
- Stainless steel toilets could be reused
- Accessories in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Shade Structure
- Add Training/ Party Room
- Add Office
- Add Storage
- Add ADA and family restrooms
- Pump house doors and frames in need of replacing

## Building Recommendations

- Total pool replacement recommended. Existing bathhouse may be considered historic and may not be feasible to remove. In that event, recommend major renovation of existing facility, gut all non-structural interior walls, fixtures and furnishings. Construct an addition as required to provide ADA compliance and family toilet, existing open area dressing areas to be roofed, buildings to be refurbished

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	3,200	9,000	\$135,000
Pool	10,700	7,000	\$1,400,000
Pool House (to include a training/ party room, office and 2 new family restrooms)	2,500	3,000	\$550,000
Pump House	1,525	800	\$5,000
Total Impervious Cover	17,925	19,800	
Total Site Costs			\$2,340,000
Construction Cost Totals			\$4,430,000
Total with Owner Costs (add 30%)			\$5,759,000

## Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	2,000	2	1	3	1
Women		3	0	3	2
<b>Required per existing pool configuration (214 occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2
<b>Required when pool is replaced (140 occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1

## Site Recommendations (3811 E. 12th Street)

### 1. Parking

#### a. Existing Parking

- 135 standard spaces
- 5 accessible spaces with \_ access aisle spaces
- 3 bicycle racks

#### b. Parking Criteria: 50 spaces minimum (existing 135 + 5)

- 140 parking spaces requires 5 accessible parking spaces
- 140 parking spaces requires 7 bicycle parking spaces (5% x 140) + 1 for Sub-Chapter E (additional 10%) = 8 total

#### c. Parking Recommendations

- Expansion of standard parking spaces is not needed

- Reconstruct the 5 accessible parking spaces and access aisles to be TAS-compliant. Add new signage and wheel stops to the reconstructed accessible parking spaces
- Additional bicycle racks are not needed

## 2. Access/Connectivity

### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from E. 12th Street ROW to front entrance
- Accessible bicycle connection from E. 12th Street ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to existing park trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (E. 12th Street, Springdale Road, Park Road, Oak Springs Drive, Grant Street, Pennsylvania Avenue)

### b. Access/Connectivity Recommendations

- Construct 10' wide pedestrian and bicycle sidewalk from E. 12th Street ROW sidewalk to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking spaces to front entrance
- Construct new 10' wide granite gravel connections from front entrance to existing hike & bike trails
- Construct 10' wide pedestrian and bicycle sidewalk access from front entrance to Springdale Road, Park Road, Oak Springs Drive, Grant Street, Pennsylvania Avenue.
- Install wayfinding signage

## 3. Drainage

### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

### b. Drainage Recommendations

- New/Redeveloped Impervious Cover

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	22,800	sf
Pool Decks	9,000	sf
Building Roofs	3,800	sf
IC for Detention and WQ	35,600	sf
Pool	7,000	sf

- Construct flow splitter structure, 7,120 cf (0.2cf/sf of IC) detention volume structure, 23,620 cf (IC x 1.3") water quality treatment structure, and outfall structure for 3,860 sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

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## 4. Water Service

### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

### b. Water Service Recommendations

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along E. 12th Street, install 4" domestic water meter with backflow preventer within E. 12th Street ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along E. 12th Street, install 2" irrigation meter with backflow preventer within E. 12th Street ROW, connect to site irrigation system
- Construct new 8" tap into water main along E. 12th Street, install 8" backflow preventer within E. 12th Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to the wastewater main on traversing the park site, install new 60" manhole at connection to wastewater main

## E.4.5 Montopolis

### Pool Recommendations

- Replace the pool with the model Community Pool
- Replace filtration system
- Replace pool deck and fence

### Site Recommendations

- Expand parking to a minimum of 50 spaces
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention

### Existing Architectural Features

- Shade structure: (1) fabric shade structure over shallow end, (1) shade structure over the grass and one small metal roof shade structure over a picnic table
- Training/Party Room: None
- Office: None
- Storage: First room in pump room area is currently being used for storage, not an advisable use
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Integrated into bathhouse building

### Building Repair Recommendations

- Renovate toilet stalls to comply with ADA
- Lights in need of replacing
- Door and frames in need of replacing

- Building in need of painting and refurbishing
- Add Training/ Party Room
- Add Office
- Add Storage
- Add ADA and family restrooms

### Building Recommendations

- Total pool replacement recommended. Minor refurbishment of existing building. Construct new building to provide for missing features

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	5,823	9,000	\$135,000
Pool	4,880	7,000	\$1,400,000
Pool House (to include a training/ party room, office and 2 new family restrooms)	1,350	3,000	\$350,000
Pump House	Included in pool house	800	Included above
Total Impervious Cover	12,053	19,800	
Total Site Costs			\$2,160,000
Construction Cost Totals			\$4,045,000
Total with Owner Costs (add 30%)			\$5,258,500

### Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	1,000	1	1	1	0*
Women		2	0	1	0*
* 1 shower provided out in the public area, not ADA compliant.					
<b>Required per existing pool configuration (98 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (140 occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1

### Site Recommendations (1200 Montopolis Drive)

#### 1. Parking

##### a. Existing Parking

- 30 standard spaces
- 2 accessible spaces with 1 access aisle
- 2 bicycle racks

##### b. Parking Criteria: 50 spaces minimum (existing 30 + 2)

- 50 parking spaces requires 2 accessible parking spaces

- 50 parking spaces requires 3 bicycle parking spaces (5% x 50) + 1 for Sub-Chapter E (additional 10%) = 4 total

**c. Parking Recommendations:**

- Expand parking from 33 spaces (30 standard spaces + 2 accessible spaces + 1 access aisle space) to 51 spaces (48 standard spaces + 2 accessible spaces + 1 access aisle space) = approx. 7,452 sf (18 spaces x 414 sf/space) expansion to the south of the existing parking lot
- Reconstruct the 2 accessible parking spaces and access aisle. Add new signage and wheel stops to the reconstructed accessible parking spaces
- Additional bicycle racks are not required
- Construct 306 lf (18 spaces x 17 lf/space) of new curbs around perimeter of parking lot
- Install 2 (18 spaces x 0.08 lights/space) new parking lot lights

**2. Access/Connectivity**

**a. Access/Connectivity Criteria: Sub-Chapter E**

- Accessible pedestrian connection from Montopolis Drive ROW to front entrance
- Accessible bicycle connection from Montopolis Drive ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to existing park trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Montopolis Drive, Begonia Circle, Carnation Terrace, Larch Terrace)

**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from Montopolis Drive ROW sidewalk to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking spaces to front entrance
- Construct new 10' wide granite gravel connections from front entrance to existing hike & bike trails
- Construct 10' wide pedestrian and bicycle sidewalk access from front entrance to Montopolis Drive, Begonia Circle, Carnation Terrace, Larch Terrace
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover
 

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	14,000 sf
Pool Decks	9,000 sf
Building Roofs	3,800 sf

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IC for Detention and WQ	26,800 sf
Pool	7,000 sf

- Construct flow splitter structure, 5,360 cf (0.2cy/sf of IC) detention volume structure, 2,910 cf (IC x 1.3") water quality treatment structure, and outfall structure for 26,800 sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct curb inlets and 18" storm drain collector piping in parking lot expansion
  - Construct site grading to drain runoff to storm drain inlets.

#### **4. Water Service**

##### **a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

##### **b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Montopolis Drive, install 4" domestic water meter with backflow preventer within Montopolis Drive ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Montopolis Drive, install 2" irrigation meter with backflow preventer within Montopolis Drive ROW, connect to site irrigation system
- Construct new 8" tap into water main along Montopolis Drive, install 8" backflow preventer within Montopolis Drive ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to the wastewater main in Montopolis Drive ROW, install new 48" manhole at connection to wastewater main

## E.4.6 Springwood

### Pool Recommendations

- The pool is slightly smaller than the minimum for a Community Pool, but no enlargement is recommended
- Provide a backwash holding tank Replace pool deck and fence
- Replace pool deck where needed

### Site Recommendations

- Ideal to expand parking to a minimum of 50 spaces from the current 21, but limited room is available
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants) if pool is upgraded in the future
- Install stormwater system and detention

### Existing Architectural Features

- Shade structure: (2) large fabric shade structures provided at perimeter of pool and one small pergola
- Training/Party Room: Large concessions area, vending machine and covered picnic area which could be used for a party area
- Office: Provided as well as a lifeguard break area and storage.
- Storage: Storage/mechanical/electrical room. Approx. 200sf
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

### Building Repair Recommendations

- Restrooms need refurbishing in the next 5 years
- Accessories in need of replacing
- Lights in need of replacing
- Building in need of painting and refurbishing (trim, walls, doors, structure and underside of roof)
- Shade Structure need to be repaired or replaced (ripped)
- Add ADA and family restrooms
- Pump house in need of painting (structure, trim and underside of roof)

### Building Recommendations

- Minor changes and upgrades to the existing bathhouse. Construct new building to provide for missing features

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	5,000	5,000	\$75,000
Pool	4,400	4,400	\$880,000
Pool House (to include a training/ party room, office and 2 new family restrooms)	865	865	\$300,000
Pump House	400	400	\$10,000
Total Impervious Cover	10,665	10,665	
Total Site Costs			\$1,550,000

Construction Cost Totals			\$2,815,000
Total with Owner Costs (add 30%)			\$3,659,500

**Bathhouse Plumbing Fixture Requirements (Verify with Health Department)**

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	865	1	1	1	0*
Women		2	0	1	0*
* 4 showers provided in the public area					
<b>Required per existing pool configuration (88 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (88 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

**Site Recommendations (13320 Lyndhurst Street)**

**1. Parking**

**a. Existing Parking**

- 18 standard spaces
- 2 accessible spaces with 1 access aisle
- 1 bicycle rack

**b. Parking Criteria: 50 spaces minimum (existing 18 + 2)**

- 50 parking spaces requires 2 accessible parking spaces
- 50 parking spaces requires 3 bicycle parking spaces (5% x 50) + 1 for Sub-Chapter E (additional 10%) = 4 total

**c. Parking Recommendations**

- Expand parking from 21 spaces (18 standard spaces + 2 accessible spaces + 1 access aisle space) to 51 spaces (48 standard spaces + 2 accessible spaces + 1 access aisle space) = approx. 12,420 sf (30 spaces x 414 sf/space) expansion to the northwest of the existing parking lot
- Add wheel stops to the accessible parking spaces
- Additional bicycle racks are not required
- Construct 510 lf (30 spaces x 17 lf/space) of new curbs around perimeter of parking lot
- Install 4 (50 spaces x 0.08 lights/space) new parking lot lights.

**2. Access/Connectivity**

**a. Access/Connectivity Criteria: Sub-Chapter E**

- Accessible pedestrian connection from Lyndhurst Street ROW to front entrance
- Accessible bicycle connection from Lyndhurst Street ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Lyndhurst Street, Parliament House Road)

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**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from Lyndhurst Street ROW sidewalk to front entrance
- Reconstruct new 5' wide accessible sidewalk from accessible parking spaces to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk access from front entrance to Lyndhurst Street, Parliament House Road
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements and parking lot expansion, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	4,000 sf
Pool Decks	0 sf
Building Roofs	0 sf
IC for Detention and WQ	4,000 sf
Pool	0 sf

- Construct flow splitter structure, 800 cf (0.2cf/sf of IC) detention volume structure, 440 cf (IC x 1.3") water quality treatment structure, and outfall structure for 4,000 sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct curb inlets and 18" storm drain collector piping in parking lot expansion
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Lyndhurst Street, install 4" domestic water meter with backflow preventer within Lyndhurst Street ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Lyndhurst

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Street, install 2" irrigation meter with backflow preventer within Lyndhurst Street ROW, connect to site irrigation system

- Construct new 8" tap into water main along Lyndhurst Street, install 8" backflow preventer within Lyndhurst Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to the wastewater main in Lyndhurst Street ROW, install new 48" manhole at connection to wastewater main

## **E.4.7 Walnut Creek**

### **Pool Recommendations**

- Long term - Replace the pool with the model Community Pool of a size smaller than the existing pool
- Replace filtration system
- Replace pool deck

### **Site Recommendations**

- No additional parking required
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention

### **Existing Architectural Features**

- Shade structure: None, a few trees around the pool perimeter
- Training/Party Room: None
- Office: None
- Storage: None
- Bathhouse/Family Restroom: No family restroom
- Pump House: Separate building

### **Building Repair Recommendations**

- Roof and soffit in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Shade Structure
- Add Training/ Party Room
- Add Office
- Add Storage
- Add ADA and family restrooms
- Investigate moisture infiltration into walls of pump house prior to painting whole building

### **Building Recommendations**

- Major renovations and addition to add missing features. Bathhouse building may be possible to renovate and expand as the interior is in moderately good condition

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	7,083	9,000	\$135,000
Pool	11,219	7,000	\$1,400,000
Pool House (to include a training/ party room, office and 2 new family restrooms)	2,460	3,000	\$350,000
Pump House	1,345	800	Included above
Total Impervious Cover	19,647	19,800	
Total Site Costs			\$2,300,000
Construction Cost Totals			\$4,185,000
Total with Owner Costs (add 30%)			\$5,440,500

### Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	1640	1	2	2	2
Women		3	0	2	2
<b>Required per existing pool configuration (225 occupants)</b>					
Men	-	1	2	2	2
Women		3	0	2	2
<b>Required when pool is replaced (140 occupants)</b>					
Men	-	1	1	1	1
Women		2	0	1	1

### Site Recommendations (12138 N. Lamar Boulevard)

#### 1. Parking

##### a. Existing Parking

- 68 standard spaces
- 8 accessible spaces with 4 access aisles
- 3 bicycle racks

##### b. Parking Criteria: 50 spaces minimum (existing 68 + 8)

- 76 parking spaces requires 4 accessible parking spaces
- 76 parking spaces requires 4 bicycle parking spaces (5% x 76) + 1 for Sub-Chapter E (additional 10%) = 5 total

##### c. Parking Recommendations

- No additional parking is required
- Install signage at 1 accessible parking space
- Additional bicycle racks are not required
- Install 7 (76 spaces x 0.08 lights/space) new parking lot lights (photos indicate possibly only one parking lot light)

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## 2. Access/Connectivity

### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from N. Lamar Boulevard ROW to front entrance.
- Accessible bicycle connection from N. Lamar Boulevard ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to park trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (N. Lamar Boulevard, Yager Lane, Walnut Creek Park Road, Old Cedar Lane, Shady Springs Road, Lincolnshire Drive, Gracywoods Neighborhood Park, Tanglewood Drive, Cedar Bend Drive, Scofield Farms Drive)

### b. Access/Connectivity Recommendations

- Construct 10' wide pedestrian and bicycle sidewalk from N. Lamar Boulevard ROW sidewalk to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk access from front entrance to N. Lamar Boulevard, Yager Lane, Walnut Creek Park Road, Old Cedar Lane, Shady Springs Road, Lincolnshire Drive, Gracywoods Neighborhood Park, Tanglewood Drive, Cedar Bend Drive, Scofield Farms Drive
- Install wayfinding signage

## 3. Drainage

### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

### b. Drainage Recommendations

- New/Redeveloped Impervious Cover

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	6,000	sf
Pool Decks	9,000	sf
Building Roofs	3,800	sf
IC for Detention and WQ	18,800	sf
Pool	7,000	sf

- Construct flow splitter structure, 3,760 cf (0.2cf/sf of IC) detention volume structure, 2,040 cf (IC x 1.3") water quality treatment structure, and outfall structure for 18,800 sf of new impervious cover
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

## 4. Water Service

### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service

- 
- Provide 2" water line/meter for irrigation water service
  - Provide 2 fire hydrants close to the building and 8" fire line
  - Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along N. Lamar Boulevard, install 4" domestic water meter with backflow preventer within N. Lamar Boulevard ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along N. Lamar Boulevard, install 2" irrigation meter with backflow preventer within N. Lamar Boulevard ROW, connect to site irrigation system
- Construct new 8" tap into water main along N. Lamar Boulevard, install 8" backflow preventer within N. Lamar Boulevard ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to the wastewater main along Wells Branch on the park site, install new 60" manhole at connection to wastewater main

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## E.5 NEIGHBORHOOD POOLS

Neighborhood Pools will continue to serve areas within a 20-minute walk or about one mile. These facilities will remain free to the public and provide basic services. Westenfield is a good example of a new Neighborhood Pool. See Chapter 5 for more information.

### Typical Neighborhood Pool Features

- Water surface of between 3,000 and 5,000 square feet with a lap pool and an activity pool with zero depth entry
- Bathhouse/ Family Restroom
- Shade

### Pools Improved or Authorized Prior to the Completion of this Master Plan

#### Govalle

Currently in design under a separate project.

Opinion of Probable Construction Cost (OPCC)(still in design stage) provided by COA:

Architectural	346,881
MEP	235,510
Pool and Amenities	1,023,863
Civil/Site	522,396
<b>Total (incl. GC, Bonds, etc.)</b>	<b>\$2,667,366</b>

#### Rosewood

Currently in design under a separate project.

OPCC (still in design stage) provided by COA:

Architectural	400,270
MEP	120,160
Pool and Amenities	52,000
Civil/Site	220,960
<b>Total (incl. GC, Bonds, etc.)</b>	<b>\$ 793,390</b>

#### Shipe

Currently in design under a separate project.

OPCC (still in design stage) provided by COA:

Architectural	405,088
MEP	
Pool and Amenities	956,115
Civil/Site (includes MEP)	609,598
<b>Total (incl. GC, Bonds, etc.)</b>	<b>\$2,623,164</b>

#### Westenfield

Completed total replacement in the last 5 years.

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Final project cost including all Change Orders, General Conditions, Bonds, Fee, etc. was \$2,536,125.90

## E.5.1 Big Stacy

### Pool Recommendations

- Big Stacy is unique in that it is a year-round warm water pool that is popular to many. But it was originally constructed in the 1930's.
- Replace pool tank and gutter
- Replace pool deck
- Replace filtration system

### Site Recommendations

- Site is located in the 100 year flood plain of Blunn Creek
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention
- Reconstruct parking lot with 3 accessible spaces
- Add parking lot lighting

### Existing Architectural Features

- Shade structure: No shade structures, a few trees on the west side of the pool.
- Office: None, but lifeguard room is located above the existing pump house and could possibly accommodate the office. Approx. 860 sf
- Storage: None
- Bathhouse/Family Restroom: New building acts as family restroom as well as normal ADA compliant restroom.

### Building Repair Recommendations

- Door hardware on new bathhouse in need of replacing
- Add Shade Structure
- Add Training/Party Room
- Add Storage
- Add ADA and family restrooms
- Office building in need of new lighting and interior painting
- Office building (pump room below) in need of underside of soffit painted
- Wood storage building in NE corner of property should be removed and new storage are built
- Historic pump house (now MEP room) in need of repointing all joints and replacing door and frame

### The below items relate to the historic bathhouse

- Exterior brick joints in need of repointing, joints way too deep
- Building in need of painting and refurbishing
- Added storage room needs to be removed and rebuilt, currently rotting
- Roof fascia in need of replacing, rotted
- Lights in need of replacing

## Building Recommendations

- Total pool replacement of pool and deck with same size and configuration as existing. Minimal work to the existing pre-fabricated bathhouse, extensive work to the historic bathhouse and pump house. Construct a new building for missing features. Demolition of existing storage building.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	2,700	2,700	\$40,500
Pool	4,000	4,000	\$800,000
Pool House (to include 2 new family restrooms)	1,200 (SF includes historic bathhouse)	1,200	\$250,000
Pump House	945 (SF includes historic pump house)	945	\$10,000
Total Impervious Cover	8,845	8,845	
Total Site Costs			\$1,400,000
Construction Cost Totals			\$2,500,500
Total with Owner Costs (add 30%)			\$3,250,650

## Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men **	300	2	1	1	1
Women **		2	0	1	1
Family – Men	900	1	0	1	1
Family – Women		1	0	1	1
<b>** Historic building, not accessible or ADA compliant</b>					
<b>Required per existing pool configuration (80 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (80 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (700 E. Live Oak Street)

### 1. Parking

#### a. Existing Parking

- 19 standard spaces (26 spaces measured from aerial view)
- 0 accessible spaces
- 2 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 26 + 0)

- 26 parking spaces requires 2 accessible parking spaces
- 26 parking spaces requires 2 bicycle parking spaces (5% x 26) + 1 for Sub-Chapter E (additional 10%) = 3 total

#### c. Parking Recommendations

- Reconstruct 3 existing parking spaces into 2 accessible parking spaces + 1 access aisle
- Add wheel stops and signage to the accessible parking spaces
- Additional bicycle racks are not required
- Reconstruct 442 lf (26 spaces x 17 lf/space) of new curbs around perimeter of parking lot
- Install 3 (26 spaces x 0.08 lights/space) new parking lot lights

**2. Access/Connectivity**

**a. Access/Connectivity Criteria: Sub-Chapter E**

- Accessible pedestrian connection from E. Live Oak Street ROW to front entrance.
- Accessible bicycle connection from E. Live Oak Street ROW to front entrance
- Accessible pedestrian connection from new accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Alameda Drive, E. Live Oak Street, East Side Drive)

**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from E. Live Oak Street ROW sidewalk to front entrance
- Reconstruct new 5' wide accessible sidewalk from new accessible parking spaces to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk access from front entrance to Alameda Drive, E. Live Oak Street, East Side Drive
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Site located in 100-year floodplain of Blunn Creek
- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements and parking lot, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	6,000 sf
Pool Decks	0 sf
Building Roofs	0 sf
IC for Detention and WQ	6,000 sf
Pool	0 sf

- Construct flow splitter structure, 1,200 cf (0.2cf/sf of IC) detention volume structure, 650 cf (IC x .3") water quality treatment structure, and outfall structure for 6,000 sf of new/redeveloped impervious cover

- 
- Construct area inlets and 18" storm drain collector piping around the pool improvements.
  - Construct curb inlets and 18" storm drain collector piping in parking lot
  - Construct site grading to drain runoff to storm drain inlets

#### **4. Water Service**

##### **a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

##### **b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along E. Live Oak Street, install 4" domestic water meter with backflow preventer within E. Live Oak Street ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along E. Live Oak Street, install 2" irrigation meter with backflow preventer within E. Live Oak Street ROW, connect to site irrigation system
- Construct new 8" tap into water main along E. Live Oak Street, install 8" backflow preventer within E. Live Oak Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to the wastewater main in E. Live Oak Street ROW, install new 48" manhole at connection to wastewater main

## E.5.2 Brentwood

### Pool Recommendations

- Reconstruct as a Neighborhood Pool according to the model, including all pool deck and filtration system

### Site Recommendations

- Provide at least one accessible parking space
- Provide accessible pedestrian and bicycle access from right-of-way
- Provide new utility connections (domestic water, irrigation water, sanitary, fire line and hydrants)
- Install stormwater system and detention

### Existing Architectural Features

- Shade structure: A wooden pergola, which is not ADA accessible
- Office: None
- Storage: In area between men's and women's park restroom structure
- Bathhouse/Family Restroom: None, uses park restroom located directly outside pool fence
- Pump House: Separate building

### Building Repair Recommendations

- Pergola structure is exhibiting possible structure instability, replace wood as needed
- Add Office
- Add Storage
- Add Bathhouse
- Add ADA and family restrooms
- Pump house doors and frames in need of replacing

### Building Recommendations

- Total pool replacement recommended. Repurpose existing building as a storage and staff office. Construct a new pool bathhouse. Replace pergola structure

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	2,700	4,700	\$70,500
Pool	2,731	4,100	\$820,000
Pool House (to include 2 new family restrooms)	28 (Sf is storage room only)	1,300	\$525,000
Pump House	245	470	\$5,000
Total Impervious Cover	5,704	10,570	
Total Site Costs			\$1,390,000
Construction Cost Totals			\$2,810,500
Total with Owner Costs (add 30%)			\$3,653,650

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men*	0	0	0	0	0**
Women*		0	0	0	0**
Family/ ADA	0	0	0	0	0**
* Nearest existing restrooms are on the other side of the pool fence and serve the park.					
** A public shower is located adjacent to the pool deck.					
<b>Required per existing pool configuration (55 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (6710 Arroyo Seca)

### 1. Parking

#### a. Existing Parking

- 0 standard spaces
- 1 accessible space (parallel parking space on Arroyo Seco)
- 0 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 0 + 1)

- Assume at least 1 accessible drop-off is required
- Assume minimum 2 bicycle parking space (5% x36) + 1 for Sub-Chapter E (additional 10%) = 3 total

#### c. Parking Recommendations

- Reconstruct existing 1 parallel accessible parking space on Arroyo Seco to be TAS compliant accessible drop-off space. Install striping and signage for accessible drop-off space
- Additional parking is not required
- Install 2 bicycle racks
- Install 2 new street lights along Arroyo Seco curb parking

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Arroyo Seco ROW to front entrance
- Accessible bicycle connection from Yates Avenue ROW to front entrance
- Accessible pedestrian connection from accessible drop-off space to front entrance

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**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from Arroyo Seco ROW sidewalk to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Yates Avenue ROW sidewalk to front entrance
- Construct new 5' wide accessible sidewalk from accessible drop-off space to front entrance
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	400 sf
Exterior Sidewalks/Flatwork	6,900 sf
Pool Decks	4,700 sf
Building Roofs	1,800 sf
Total IC for Detention and WQ	13,800 sf
Pool	4,100 sf

- Construct flow splitter structure, 2,760 cf (0.20cf/sf of IC) detention volume structure, 1,500 cf (IC x 1.3") water quality treatment structure, and outfall structure for 13,800 sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- New fire hydrants are not needed. There is an existing fire hydrant at the intersection of Arroyo Seco and Ruth Avenue and an existing fire hydrant at the intersection of Arroyo Seco and Choquette Drive
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into water main along Arroyo Seco, install 4" domestic water meter with backflow preventer within Arroyo Seco ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Arroyo Seco,

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install 2" irrigation meter with backflow preventer within Arroyo Seco, connect to site irrigation system

- Construct new 8" wastewater pipe from pool site to the wastewater main in Arroyo Seco, install new 48" manhole at connection to wastewater main

## E.5.3 Canyon Vista

### Pool Recommendations

- Pool is leased from the Round Rock ISD for ten years. Keep pool in operation as long as possible. Long term it may need to be moved due to school expansion. Therefore, plan to relocate the pool at a more suitable location in the general vicinity as this is the only pool in the area
- A new location will allow a more family-friendly experience with a bathhouse and restroom nearby. Currently restrooms are at the adjacent football field
- Replace gutter grating
- Other improvements as identified in the Needs Assessment

### Site Recommendations

- Parking is primarily for the school. Reconstruct and restripe 5 parking spaces for accessible spaces
- Provide accessible pedestrian and bicycle access from right-of-way

### Existing Architectural Features

- Shade structure: A wood pergola covers about half of the non-pool deck area
- Office: None
- Storage: Concessions area currently being used for storage, approx. 200sf
- Bathhouse/Family Restroom: None
- Pump House: Separate outdoor fenced in area

### Building Repair Recommendations

- Roof in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing (including coiling)
- Building in need of painting and refurbishing
- Add Office
- Add ADA and family restrooms
- Add Bathhouse

### Building Recommendations

- Construct a bathhouse, long term the pool will be relocated

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	5,400	5,400 (existing)	\$81,000
Pool	3,280	3,280 (existing)	\$656,000
Pool House (to include 2 new family restrooms)	145 (SF is storage room only)	1,300	\$450,000
Pump House	80	80 (existing)	Included above
Total Impervious Cover	8,905	10,060	
Total Site Costs			\$1,280,000
Construction Cost Totals			\$2,467,000
Total with Owner Costs (add 30%)			\$3,207,100

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	0	0	0	0	0
Women		0	0	0	0
<b>Required per existing pool configuration (55 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (8455 Spicewood Springs Road)

### 1. Parking

#### a. Existing Parking

- 128 standard spaces
- 2 accessible spaces
- 0 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 128 + 2)

- 130 parking spaces requires 5 accessible parking spaces
- 130 parking spaces requires 7 bicycle parking space (5% x130) + 1 for Sub-Chapter E (additional 10%) = 8 total

#### c. Parking Recommendations:

- Reconstruct and restripe existing 5 standard parking spaces to be 3 accessible parking spaces plus 2 associated access aisles
- Install new signage and wheel stops for all accessible parking spaces
- Install 4 bicycle racks
- Additional parking is not required

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Spicewood Springs Road ROW to front entrance
- Accessible bicycle connection from Spicewood Springs Road ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Spicewood Springs Road, Callanish Park Drive, Cedarcliffe Drive)
- Accessible pedestrian and bicycle connection from front entrance to internal trail system

#### b. Access/Connectivity Recommendations

- Construct 10' wide pedestrian and bicycle connection from Spicewood Springs Road ROW sidewalk to front entrance
- Reconstruct accessible sidewalk and parking lot crossing from accessible parking spaces to front entrance
- Construct 10' wide pedestrian and bicycle connections to Spicewood Springs Road, Callanish Park Drive, and Cedarcliffe Drive

- Construct 10' wide pedestrian and bicycle connection to internal trails
- Install wayfinding signage

### 3. Drainage

#### a. Drainage Criteria:

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

#### b. Drainage Recommendations:

- New/redeveloped impervious cover:

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	5,000 sf
Pool Decks	4,700 sf
Building Roofs	1,800 sf
IC for Detention and WQ	11,500 sf
Pool	4,100 sf

- Construct flow splitter structure, 2,300 cf (0.2cf/sf of IC) detention volume structure, 1,250 cf (IC x 1.3") water quality treatment structure, and outfall structure for 11,500 sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

### 4. Water Service

#### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- There are 2 existing fire hydrants close to the pool along Spicewood Springs Road also providing fire flow for Canyon Vista Middle School
- Provide 8" wastewater line for wastewater service

#### b. Water Service Recommendations

- Construct new 4" tap into water main along Spicewood Springs Road, install 4" domestic water meter with backflow preventer within Spicewood Springs Road ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into water main along Spicewood Springs Road, install 2" irrigation meter with backflow preventer within Spicewood Springs Road ROW, connect to site irrigation system
- Construct new 8" wastewater pipe from pool site to the wastewater main along Yaupon Drive (a lift station might be required), install new 48" manhole at connection to wastewater main

## E.5.4 Civitan

### Pool Recommendations

- This pool is in poor condition and not well attended. It is also close to Montopolis, which per this Aquatic Master Plan, is recommended to be upgraded to a Community Pool. Long-term this pool would ideally be decommissioned after Montopolis is redeveloped.
- If this facility is to stay at this location, it will need to be completely replaced with a new Neighborhood Pool with a bathhouse. The below recommendations are based upon the premise that it will be replaced.

### Site Recommendations

- Provide one TAS compliant parallel drop-off space on Vargas Road
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention

### Existing Architectural Features

- Shade structure: There appears to one have been a wooden canopy shading the concrete area between the two pools but is no longer there. No other shade structures exist
- Office: None
- Storage: None
- Bathhouse/Family Restroom: None, uses park restroom located directly outside pool fence

### Building Repair Recommendations

- Roof and soffit in need of replacing
- Add Shade Structure or reconstruct existing
- Add Office
- Add ADA and family restrooms
- Add bathhouse
- Pump house cyclone fencing in need of replacement
- Minor maintenance and repairs needed in the pump house

### Building Recommendations

- Recommend adding a bathhouse and associated spaces currently not provided

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	4,050	4,700	\$70,500
Pool	3,515	4,100	\$820,000
Pool House (to include 2 new family restrooms)	0	1,300	\$450,000
Pump House	250	470	Included above
Total Impervious Cover	7,815	10,570	
Total Site Costs			\$1,510,000
Construction Cost Totals			\$2,850,500
Total with Owner Costs (add 30%)			\$3,705,650

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men*	0	0	0	0	0**
Women*		0	0	0	0**
* Nearest existing restrooms are just outside of the pool fence and serve the park.					
** A public shower is located adjacent to the pool deck.					
<b>Required per existing pool configuration (81 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (94 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (513 Vargas Road)

### 1. Parking

#### a. Existing Parking

- 0 standard spaces
- 0 accessible spaces
- 2 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 0 + 0)

- Assume at least 1 accessible drop-off is required
- Assume minimum 2 bicycle parking space (5% x36) + 1 for Sub-Chapter E (additional 10%) = 3 total

#### c. Parking Recommendations

- Construct 1 parallel TAS compliant accessible drop-off space on Vargas Road. Install striping and signage for accessible drop-off space
- Additional parking is not required
- Install 1 bicycle rack
- Install 2 new street lights along Vargas Road curb parking

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Vargas Road ROW to front entrance
- Accessible bicycle connection from Vargas Road ROW to front entrance
- Accessible pedestrian connection from accessible drop-off space to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Vargas Road, Ponca Street)

#### b. Access/Connectivity Recommendations:

- Construct 10' wide pedestrian and bicycle sidewalk from Vargas Road ROW sidewalk to front entrance

- Construct 10' wide pedestrian and bicycle sidewalk from Ponca Street ROW sidewalk to front entrance
- Construct new 5' wide accessible sidewalk from accessible drop-off space to front entrance
- Install wayfinding signage

### 3. Drainage

#### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

#### b. Drainage Recommendations

- New/redeveloped impervious cover:
 

Parking Expansion	300 sf	sf
Exterior Sidewalks/Flatwork	7,100	sf
Pool Decks	4,700	sf
Building Roofs	1,800	sf
IC for Detention and WQ	13,900	sf
Pool	4,100	sf
- Construct flow splitter structure, 2,780 cf (0.2cf/sf of IC) detention volume structure, 1,510 cf (IC x 1.3") water quality treatment structure, and outfall structure for 13,900 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

### 4. Water Service

#### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- New fire hydrants are not needed. There are 2 existing fire hydrants along Vargas Street near the pool site
- Provide 8" wastewater line for wastewater service

#### b. Water Service Recommendations

- Construct new 4" tap into water main along Vargas Street, install 4" domestic water meter with backflow preventer within Vargas Street ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Vargas Street, install 2" irrigation meter with backflow preventer within Vargas Street, connect to site irrigation system
- Construct new 8" wastewater pipe from pool site to the wastewater main in Vargas Street, install new 48" manhole at connection to wastewater main

## E.5.5 Dottie Jordan

### Pool Recommendations

- Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5

### Site Recommendations

- The site is located in the 100 year floodplain of Little Walnut Creek
- Parking is provided at the adjacent Recreation Center
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention

### Existing Architectural Features

- Shade structure: None
- Office: Approx. 150sf
- Storage: None
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump house: Integrated into bathhouse building

### Building Repair Recommendations

- Accessories in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Shade Structure
- Add Office
- Add ADA and family restrooms

### Building Recommendations

- Construct a replacement bathhouse. Refurbish the existing building as shade, storage and staff office

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	5,346	4,700	\$70,500
Pool	4,550	4,100	\$820,000
Pool House (to include 2 new family restrooms)	900	1,300	\$450,000
Pump House	Included in the pool house	470	\$50,000
Total Impervious Cover	10,796	10,570	
Total Site Costs			\$1,700,000
Construction Cost Totals			\$3,090,500
Total with Owner Costs (add 30%)			\$4,017,650

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	450	1	1	1	0
Women		2	0	1	0
<b>Required per existing pool configuration (91 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (2803 Loyola Lane)

### 1. Parking

#### a. Existing Parking

- 25 standard spaces
- 2 accessible spaces
- 2 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 25 + 2)

- 27 parking spaces requires 2 accessible parking spaces
- 27 parking spaces requires 2 bicycle parking spaces (5% x27) + 1 for Sub-Chapter E (additional 10%) = 3 total

#### c. Parking Recommendations

- Restripe existing parking spaces.
- Additional parking is not required
- Additional bicycle racks are not required
- Install 3 (27 spaces x 0.08 lights/space) new parking lot lights

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Loyola Lane ROW to front entrance.
- Accessible bicycle connection from Loyola Lane ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Loyola Lane, Auburndale Street, Lakeside Drive, Willamette Drive, Northeast Drive)

#### b. Access/Connectivity Recommendations

- Construct 10' wide pedestrian and bicycle sidewalk from Loyola Lane ROW sidewalk to front entrance
- Reconstruct new 5' wide accessible sidewalk from accessible parking spaces to front entrance

- Construct 10' wide pedestrian and bicycle sidewalk access from front entrance to Loyola Lane, Auburndale Street, Lakeside Drive, Williamette Drive, Northeast Drive
- Install wayfinding signage

### 3. Drainage

#### a. Drainage Criteria

- Site located in 100-year floodplain of Little Walnut Creek
- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

#### b. Drainage Recommendations

- New/redeveloped impervious cover:

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	10,000	sf
Pool Decks	4,700	sf
Building Roofs	1,800	sf
IC for Detention and WQ	16,500	sf
Pool	4,100	sf

- Construct flow splitter structure, 3,300 cf (0.2cf/sf of IC) detention volume structure, 1,790 cf (IC x 1.3") water quality treatment structure, and outfall structure for 16,500 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

### 4. Water Service

#### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

#### b. Water Service Recommendations

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Loyola Lane, install 4" domestic water meter with backflow preventer within Loyola Lane ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Loyola Lane, install 2" irrigation meter with backflow preventer within Loyola Lane, connect to site irrigation system
- Construct new 8" tap into water main along Loyola Lane, install 8" backflow preventer within Loyola Lane ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site
- Construct new 8" wastewater pipe from pool site to the wastewater main in Loyola Lane ROW, install new 48" manhole at connection to wastewater main

## E.5.6 Gillis

### Pool Recommendations

- Gillis is one of the “Critical Pools” as identified in the Aquatic Assessment. Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5. A new location within the park may be better so the pool is closer to parking.

### Site Recommendations

- Reconstruct 3 parking spaces to serve as 2 TAS compliant accessible spaces.
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention

### Existing Architectural Features

- Shade structure: None
- Office: None
- Storage: None
- Bathhouse/Family Restroom: None
- Pump House: None

### Building Repair Recommendations

- Add Shade Structure
- Add Office
- Add Storage
- Add ADA and family restrooms
- Add Bathhouse

### Building Recommendations

- Construct a bathhouse

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	603	4,700	\$70,500
Pool	2,550	4,100	\$820,000
Pool House (to include 2 new family restrooms)	0	1,300	\$450,000
Pump House	0	470	Included above
Total Impervious Cover	3,153	10,570	
Total Site Costs			\$1,410,000
Construction Cost Totals			\$2,750,500
Total with Owner Costs (add 30%)			\$3,575,650

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men*	0	0	0	0	0**
Women*		0	0	0	0**
* Nearest existing restrooms are in the park and very remote.					
** A public shower is located adjacent to the pool deck (appears to possibly be a shower).					
<b>Required per existing pool configuration (51 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (2504 Durwood Avenue)

### 1. Parking

#### a. Existing Parking

- 50 standard spaces
- 1 accessible space (near baseball field)
- 1 bicycle rack (near basketball court)

#### b. Parking Criteria: Accessible spaces minimum (existing 50 + 1)

- 51 parking spaces requires at least 3 accessible parking spaces
- Assume minimum 3 bicycle parking space (5% x51) + 1 for Sub-Chapter E (additional 10%) = 4 total

#### c. Parking Recommendations

- Reconstruct 3 existing standard parking spaces to be 2 new accessible parking spaces and access aisle. Install striping, signage and wheel stops for all 3 accessible parking spaces
- Additional parking is not required
- Install 2 bicycle racks
- Install 2 new street lights along Vargas Road curb parking

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Vargas Road ROW to front entrance
- Accessible bicycle connection from Vargas Road ROW to front entrance
- Accessible pedestrian connection from accessible drop-off space to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Vargas Road, Ponca Street)

#### b. Access/Connectivity Recommendations

- Construct 10' wide pedestrian and bicycle sidewalk from Vargas Road ROW sidewalk to front entrance

- Construct 10' wide pedestrian and bicycle sidewalk from Ponca Street ROW sidewalk to front entrance.
- Construct new 5' wide accessible sidewalk from accessible drop-off space to front entrance
- Install wayfinding signage

### 3. Drainage

#### a. Drainage Criteria:

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

#### b. Drainage Recommendations:

- New/redeveloped impervious cover:

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	5,500	sf
Pool Decks	4,700	sf
Building Roofs	1,800	sf
IC for Detention and WQ	12,000	sf
Pool	4,100	sf

- Construct flow splitter structure, 2,400 cf (0.2cf/sf of IC) detention volume structure, 1,300 cf (IC x 1.3") water quality treatment structure, and outfall structure for 12,000 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets.

### 4. Water Service

#### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- New fire hydrants are not needed. There are 2 existing fire hydrants along Vargas Street near the pool sit
- Provide 8" wastewater line for wastewater service

#### b. Water Service Recommendations

- Construct new 4" tap into water main along Vargas Street, install 4" domestic water meter with backflow preventer within Vargas Street ROW, install 4" domestic water pipe to pool site
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Vargas Street, install 2" irrigation meter with backflow preventer within Vargas Street, connect to site irrigation system
- Construct new 8" wastewater pipe from pool site to the wastewater main in Vargas Street, install new 48" manhole at connection to wastewater main

## E.5.7 Kennemer

### Pool Recommendations

- Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5.

### Site Recommendations

- Reconstruct 3 parking spaces to serve as 2 TAS compliant accessible spaces.
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention

### Existing Architectural Features

- Shade structure: One wooden pergola over one picnic table. Trees are around the perimeter of the pool.
- Office: None
- Storage: None
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Integrated into bathhouse building.

### Building Repairs Recommendations

- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Pergola will need replacing in the next 5 years
- Add Office
- Add Storage
- Add ADA and family restrooms

### Building Recommendations

- Total pool replacement recommended. Refurbish the existing bathhouse. Construct a new building for missing features. Replace pergola.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	4,833	4,700	\$70,500
Pool	4,224	4,100	\$820,000
Pool House (to include 2 new family restrooms)	850	1,300	\$250,000
Pump House	Included in the pool house	470	Included above
Total Impervious Cover	9,907	10,570	
Total Site Costs			\$1,250,000
Construction Cost Totals			\$2,390,500
Total with Owner Costs (add 30%)			\$3,107,650

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	650	1	2	2	0
Women		3	0	2	0
<b>Required per existing pool configuration (85 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (1031 Peyton Gin Road)

### 1. Parking

#### a. Existing Parking

- 32 standard spaces
- 0 accessible spaces
- 2 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 32 + 0)

- 32 parking spaces requires 2 accessible parking spaces
- 32 parking spaces requires 2 bicycle parking spaces (5% x32) + 1 for Sub-Chapter E (additional 10%) = 3 total

#### c. Parking Recommendations

- Reconstruct existing 3 parking spaces and restripe for 2 accessible spaces and access aisle. Install wheel stops and signage for accessible parking spaces
- Additional parking is not required
- Additional bicycle racks not required
- Install 3 (28 spaces x 0.08 lights/space) new parking lot lights

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Peyton Gin Road ROW to front entrance
- Accessible bicycle connection from Peyton Gin Road ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance

#### b. Access/Connectivity Recommendations

- Construct 10' wide pedestrian and bicycle sidewalk from Peyton Gin Road ROW sidewalk to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking spaces to front entrance
- Install wayfinding signage

### 3. Drainage

#### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/redeveloped impervious cover:
 

Parking Expansion	1,300 sf
Exterior Sidewalks/Flatwork	4,700 sf
Pool Decks	1,800 sf
Building Roofs	7,800 sf
IC for Detention and WQ	4,100 sf
Pool	4,100 sf
- Construct flow splitter structure, 1,560 cf (0.2cf/sf of IC) detention volume structure, 845 cf (IC x 1.3") water quality treatment structure, and outfall structure for 7,800 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Peyton Gin Road, install 4" domestic water meter with backflow preventer within Peyton Gin Road ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Peyton Gin Road, install 2" irrigation meter with backflow preventer within Peyton Gin Road, connect to site irrigation system.
- Construct new 8" tap into water main along Peyton Gin Road, install 8" backflow preventer within Peyton Gin Road ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Construct new 8" wastewater pipe from pool site to the wastewater main in Collinfield Drive (at its intersection with Peyton Gin Road), install new 48" manhole at connection to wastewater main.

## E.5.8 Little Stacy

### Pool Recommendations

- If this facility is to remain open, redevelop the pool to include a zero-depth entry
- Replace the pool walls

### Site Recommendations

- Develop at least one TAS compliant accessible spaces
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention

### Existing Architectural Features

- Shade structure: None but the majority of the pool and area surrounding it are covered by tree canopy
- Office: None
- Storage: None
- Bathhouse/Family Restroom: None
- Pump House: Adjacent to the pool

### Building Repairs Recommendations

- Add Shade Structure
- Add Office
- Add Storage
- Add ADA and family restrooms
- Add Bathhouse

### Building Recommendations

- Recommend adding restrooms and replacing pool for a zero depth entry

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	960	960	\$14,400
Pool	1,500	1,500	\$14,400
Pool House (to include 2 new family restrooms)	-		\$450,000
Pump House	100	100	-
Total Impervious Cover	2560		
Total Site Costs			\$1,570,000
Construction Cost Totals			\$2,334,400
Total with Owner Costs (add 30%)			\$3,034,720

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	0	0	0	0	0
Women		0	0	0	0
<b>Required per existing pool configuration (30 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (30 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (1500 Alameda Drive)

### 1. Parking

#### a. Existing Parking

- 0 standard spaces
- 0 accessible spaces
- 2 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 0 + 0)

- Assume at least 1 accessible drop-off is required
- Assume minimum 2 bicycle parking space + 1 for Sub-Chapter E (additional 10%) = 3 total

#### c. Parking Recommendations

- Construct 1 parallel TAS compliant accessible drop-off space on East Side Drive. Install striping and signage for accessible drop-off space
- Additional parking is not required
- Install 1 bicycle rack
- Install 1 new street light at proposed East Side Drive accessible drop-off and 4 new street lights along Sunset Lane shoulder parking

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from East Side Drive ROW to front entrance
- Accessible bicycle connection from East Side Drive ROW to front entrance
- Accessible pedestrian connection from accessible drop-off space on East Side Drive to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (East Side Drive, Sunset Lane, Alameda Drive, Blunn Creek Road)

#### b. Access/Connectivity Recommendations

- Construct 5' wide sidewalk along East Side Drive
- Construct 10' wide pedestrian and bicycle sidewalk from East Side Drive ROW sidewalk to front entrance

- Construct 10' wide pedestrian and bicycle sidewalk from front entrance to East Side Drive, Sunset Lane, Alameda Drive, Blunn Creek Road)
- Construct new 5' wide accessible sidewalk from accessible drop-off space on East Side Drive to front entrance
- Install wayfinding signage

### 3. Drainage

#### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

#### b. Drainage Recommendations

- New/Redeveloped Impervious Cover:

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	5,500 sf
Pool Decks	0 sf
Building Roofs	300 sf
IC for Detention and WQ	5,800 sf
Pool	0 sf

- Construct flow splitter structure, 1,160 cf (0.20cf/sf of IC) detention volume structure, 630 cf (IC x 1.3") water quality treatment structure, and outfall structure for 5,800 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

### 4. Water Service

#### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the pool pump room and bathroom facilities
- Provide 8" wastewater line for wastewater service

#### b. Water Service Recommendations

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Alameda Drive, install 4" domestic water meter with backflow preventer within East Side Drive ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Alameda Drive, install 2" irrigation meter with backflow preventer within East Side Drive ROW, connect to site irrigation system.
- Construct new 8" tap into water main along Alameda Drive, install 8" backflow preventer within Alameda Drive ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Construct new 8" wastewater pipe from pool site to the wastewater main in East Side Drive, install new 48" manhole at connection to wastewater main.

## E.5.9 Martin

### Pool Recommendations

- Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5.
- Work at Martin should be completed before Metz

### Site Recommendations

- Restripe accessible parking spaces to be TAS compliant accessible spaces.
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention
- New parking lights

### Existing Architectural Features

- Shade structure: None
- Office: None
- Storage: Doubles as the guard room and is an anteroom to the pool equipment, not an advisable situation.
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Integrated into bathhouse building.

### Building Repair Recommendations

- Accessories in need of replacing
- Lights in need of replacing
- Building in need of painting and moderate refurbishing
- Add Shade Structure
- Add Office
- Add Storage
- Add ADA and family restrooms

### Building Recommendations

- Total pool replacement recommended. Major refurbishment of existing building and addition of missing features.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	5,967	4,700	\$70,500
Pool	4,880	4,100	\$820,000
Pool House (to include 2 new family restrooms)	1,350	1,300	\$225,000
Pump House	Included in pool house	470	
Total Impervious Cover	12,197	10,570	
Total Site Costs			\$1,950,000
Construction Cost Totals			\$3,065,500
Total with Owner Costs (add 30%)			\$3,985,150

## Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	800	1	1	2	0
Women		2	0	1	0
Family/ ADA	0	0	0	0	0
<b>Required per existing pool configuration (98 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

## Site Recommendations (1626 Nash Hernandez Sr. Drive)

### 1. Parking

#### a. Existing Parking

- 16 standard spaces
- 3 accessible spaces
- 2 bicycle racks

#### b. Parking Criteria: Accessible spaces minimum (existing 16 + 3)

- 19 parking spaces requires 1 accessible parking space
- 19 parking spaces requires 1 bicycle parking space (5% x 19) + 1 for Sub-Chapter E (additional 10%) = 2 total

#### c. Parking Recommendations

- Restripe accessible parking spaces due to one of access aisles width does not comply with TAS
- Install new signage for accessible parking spaces
- Additional parking is not required
- Install 2 (19 spaces x 0.08 lights/space) new parking lot lights

### 2. Access/Connectivity

#### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Nash Hernandez Sr. Road ROW to front entrance
- Accessible bicycle connection from Nash Hernandez Sr. Road ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Nash Hernandez Sr. Road, Chicon Street, Salina Street, Chalmers Avenue)

#### b. Access/Connectivity Recommendations

- Reconstruct 10' wide pedestrian and bicycle sidewalk from Nash Hernandez Sr. Drive ROW sidewalk to front entrance. Construct 5' wide sidewalk along Nash Hernandez Sr. Drive along frontage with pool site
- Reconstruct new 5' wide accessible sidewalk from accessible parking spaces to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk access from front entrance to Nash Hernandez

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Sr. Road, Chicon Street, Salina Street, Chalmers Avenue

- Install wayfinding signage

### 3. Drainage

#### a. Drainage Criteria

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

#### b. Drainage Recommendations

- New/redeveloped impervious cover:

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	17,400 sf
Pool Decks	4,700 sf
Building Roofs	1,800 sf
IC for Detention and WQ	23,900 sf
Pool	4,100 sf

- Construct flow splitter structure, 4,780 cf (0.2cf/sf of IC) detention volume structure, 2,590 cf (IC x 1.3") water quality treatment structure, and outfall structure for 23,900 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

### 4. Water Service

#### a. Water Service Criteria

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

#### b. Water Service Recommendations

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Nash Hernandez Sr. Drive, install 4" domestic water meter with backflow preventer within Nash Hernandez Sr. Drive ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Nash Hernandez Sr. Drive, install 2" irrigation meter with backflow preventer within Nash Hernandez Sr. Drive, connect to site irrigation system.
- Construct new 8" tap into water main along Nash Hernandez Sr. Drive, install 8" backflow preventer within Nash Hernandez Sr. Drive ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Construct new 8" wastewater pipe from pool site to the wastewater main from Chalmers Avenue to Nash Hernandez Sr. Drive, install new 48" manhole at connection to wastewater main.

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## E.5.10 Metz

### Pool Recommendations

- Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5.
- Consider decommissioning this one as it is close to Martin

### Site Recommendations

- Additional parking is not required
- Restripe accessible parking spaces to be TAS compliant accessible spaces.
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention
- New parking lights

### Existing Architectural Features

- Shade structure: None but the majority of the area surrounding the pool is covered by tree canopy.
- Office: None
- Storage: Located in area between Men's and Women's restroom
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

### Building Repair Recommendations

- Roof and soffit in need of replacing
- Toilet stall doors in need of replacing
- Accessories in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in need of painting and refurbishing
- Add Shade Structure
- Add Office
- Add ADA and family restrooms
- Pump house door and frame in need of replacing

### Building Recommendations:

- Total pool replacement recommended. The existing bathhouse has a community mural to be preserved. Major refurbishment of the existing building. Construct a building for missing features.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	2,565	4,700	\$70,500
Pool	3,992	4,100	\$820,000
Pool House (to include 2 new family restrooms)	450	1,300	\$125,000
Pump House	310	470	
Total Impervious Cover	7,317	10,570	

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Total Site Costs			\$1,710,000
Construction Cost Totals			\$2,725,500
Total with Owner Costs (add 30%)			\$3,543,150

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	350	1	1	1	0
Women		2	0	1	0
<b>Required per existing pool configuration (80 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

### Site Recommendations (2407 Canterbury Street)

#### 1. Parking

##### a. Existing Parking

- 20 standard spaces
- 2 accessible spaces
- 2 bicycle racks

##### b. Parking Criteria: Accessible spaces minimum (existing 20 + 2)

- 22 parking spaces require at least 1 accessible parking space
- Assume minimum 2 bicycle parking space (5% x22) + 1 for Sub-Chapter E (additional 10%) = 3 total

##### c. Parking Recommendations

- Reconstruct existing 2 accessible parking spaces, and curb ramp. Install striping, signage and wheel stops for the 2 accessible parking spaces.
- Restripe existing parking spaces
- Additional parking is not required
- Additional bicycle racks not required
- Install 2 (22 spaces x 0.08 lights/space) new parking lot lights

#### 2. Access/Connectivity

##### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Canterbury Street ROW to front entrance
- Accessible bicycle connection from Canterbury Street ROW to front entrance.
- Accessible pedestrian connection from accessible parking spaces to front entrance
- Accessible pedestrian and bicycle connection to internal trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Canterbury Street, Mildred Street, Garden Street, Holly Street, Pedernales Street)

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**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from Canterbury Street ROW sidewalk to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Mildred Street ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Garden Street ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Holly Street ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Pedernales Street ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Ann and Roy Butler Hike & Bike Trail to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking spaces to front entrance
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria:**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	11,300 sf
Pool Decks	4,700 sf
Building Roofs	1,800 sf
Total IC for Detention and WQ	17,800 sf
Pool	4,100 sf

- Construct flow splitter structure, 3,560 cf (0.20cf/sf of IC) detention volume structure, 1,930 cf (IC x 1.3") water quality treatment structure, and outfall structure for 17,800 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the pool building and 8" fire line
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Canterbury Street, install 4" domestic water meter with backflow preventer within Canterbury Street ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Canterbury

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Street, install 2" irrigation meter with backflow preventer within Canterbury Street ROW, connect to site irrigation system.

- Construct new 8" tap into water main along Canterbury Street, install 8" backflow preventer within Canterbury Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near pool site.
- Construct new 8" wastewater pipe from pool site to the wastewater main in Canterbury Street, install new 48" manhole at connection to wastewater main.

## **E.5.11 Murchison**

### **Pool Recommendations**

- Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5.
- Site Recommendations:
  - Additional parking is not required
  - Restripe accessible parking spaces to be TAS compliant accessible spaces.
  - Restripe all parking spaces
  - Provide accessible pedestrian and bicycle access from right-of-way
  - New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
  - Install stormwater detention

### **Existing Architectural Features**

- Shade structure: Large wooden pergola in the southwest corner of grass area. Not ADA accessible.
- Office: None
- Storage: Located in back of bathhouse, approx. 81sf.
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

### **Building Repairs Recommendations**

- Pergola in need of replacing in less than 5 years
- Lavatories fixtures in need of replacing
- Accessories in need of replacing
- Lights in need of replacing
- Building in need of painting and refurbishing
- Add Office
- Add Storage
- Add ADA and family restrooms
- Pump house doors and frames in need of replacing. Pump house has structural issues to be corrected.

### **Building Recommendations**

- Total pool replacement recommended. Major refurbishment or replacement of existing building. Construct addition for missing features. Replace the pergola.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	4,023	4,700	\$70,500
Pool	4,224	4,100	\$820,000
Pool House (to include 2 new family restrooms)	350	1,300	\$275,000
Pump House	225	470	\$20,000
Total Impervious Cover	8,822	10,570	
Total Site Costs			\$1,230,000
Construction Cost Totals			\$2,415,500
Total with Owner Costs (add 30%)			\$3,140,150

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	350	1	2	2	0*
Women		3	0	2	0*
<b>* (1) Public shower on the side of the bathhouse building.</b>					
<b>Required per existing pool configuration (85 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

### Site Recommendations (3700 North Hills Drive)

#### 1. Parking

##### a. Existing Parking

- 32 standard spaces
- 2 accessible spaces
- 3 bicycle racks

##### b. Parking Criteria: Accessible spaces minimum (existing 32 + 2)

- 34 parking spaces requires 2 accessible parking spaces
- 34 parking spaces requires 2 bicycle parking space (5% x34) + 1 for Sub-Chapter E (additional 10%) = 3 total

##### c. Parking Recommendations:

- Restripe all parking spaces
- Install new signage and wheel stops for accessible parking spaces
- Additional parking is not required
- Install 3 (34 spaces x 0.08 lights/space) new parking lot lights

#### 2. Access/Connectivity

##### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Hart Lane ROW to front entrance

- Accessible bicycle connection from Hart Lane ROW to front entrance
- Accessible pedestrian connection from accessible parking to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Hart Lane, Far West Boulevard)

**b. Access/Connectivity Recommendations**

- Reconstruct accessible sidewalk along accessible parking spaces
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0 sf	sf
Exterior Sidewalks/Flatwork	700 sf	sf
Pool Decks	4,700	sf
Building Roofs	1,800	sf
Total IC for Detention and WQ	7,200	sf
Pool	4,100	sf

- Construct flow splitter structure, 1,440 cf (0.20cf/sf of IC) detention volume structure, 780 cf (IC x 1.3") water quality treatment structure, and outfall structure for 7,200 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Hart Lane, install 4" domestic water meter with backflow preventer within Hart Lane ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Hart Lane, install 2" irrigation meter with backflow preventer within Hart Lane ROW, connect to site irrigation system.
- Construct new 8" tap into water main along Hart Lane, install 8" backflow preventer within Hart Lane ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.

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- Construct new 8" wastewater pipe from pool site to the wastewater main along Hart Lane, install new 48" manhole at connection to wastewater main.

## E.5.12 Parque Zaragoza

### Pool Recommendations

- Pool has considerable leaks
- If this pool is to continue in operation, a new bathhouse will need to be developed which may not be possible within the floodplain. This pool is also close to others and, therefore, is a candidate for decommissioning.
- If the pool is to continue in operation, completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5.

### Site Recommendations

- This site is located within the floodplain
- Additional parking is not required
- Reconstruct one parking space to be TAS compliant accessible spaces.
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention
- Parking lot lights

### Existing Architectural Features

- Shade structure: None
- Office: None
- Storage: None
- Bathhouse/Family Restroom: None, The adjacent historic building has been condemned. Porta-potties are brought in during the summer.
- Pump House: Separate building

### Building Repair Recommendations

- Add Shade Structure
- Add Office
- Add Storage
- Add ADA and family restrooms
- Add Bathhouse

### Building Recommendations

- Recommend repurposing condemned historic building adjacent to pool for bathhouse with a major renovation. Additional building may need to be added to accommodate all desired features.

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	2,673	4,700	\$70,500
Pool	3,992	4,100	\$820,000
Pool House (to include 2 new family restrooms)	1,920 (building historic but condemned)	1,300	\$450,000
Pump House	180	470	
Total Impervious Cover	8,765	10,570	
Total Site Costs			\$1,850,000
Construction Cost Totals			\$3,190,500
Total with Owner Costs (add 30%)			\$4,147,650

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	0	0	0	0	0
Women		0	0	0	0
<b>Required per existing pool configuration (80 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

### Site Recommendations (2608 Gonzales Street)

#### 1. Parking

##### a. Existing Parking

- 2 standard spaces
- 1 accessible space
- 0 bicycle racks

##### b. Parking Criteria: Accessible spaces minimum (existing 2 + 1)

- 3 parking spaces require at least 1 accessible parking space.
- Assume minimum 1 bicycle parking space + 1 for Sub-Chapter E (additional 10%) = 2 total

##### c. Parking Recommendations

- Reconstruct existing 1 accessible parking space, access aisle and curb ramp. Install striping, signage and wheel stop for the accessible parking space
- Reconstruct and stripe existing 2 parking spaces
- Additional parking is not required
- Install 1 bicycle rack
- Install 2 new parking lot lights: 1 at the accessible parking space and 1 at the 2 standard parking spaces

#### 2. Access/Connectivity

##### a. a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Webberville Road ROW sidewalk to front entrance

- Accessible bicycle connection from Webberville Road ROW to front entrance
- Accessible pedestrian connection from accessible parking space to front entrance
- Accessible pedestrian connection from standard parking spaces to front entrance
- Accessible pedestrian and bicycle connection to internal trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Webberville Road, Francisco Street)

**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from Webberville Road ROW sidewalk to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Webberville Road ROW sidewalk to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Francisco Street ROW to front entrance.
- Construct 10' wide pedestrian and bicycle sidewalk from internal trails to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking space to front entrance
- Construct new 5' wide accessible sidewalk from standard parking spaces to front entrance
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	14,000 sf
Pool Decks	4,700 sf
Building Roofs	1,800 sf
Total IC for Detention and WQ	20,500 sf
Pool	4,100 sf

- Construct flow splitter structure, 4,100 cf (0.20cf/sf of IC) detention volume structure, 2,230 cf (IC x 1.3") water quality treatment structure, and outfall structure for 20,500 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the pool building and 8" fire line
- Provide 8" wastewater line for wastewater service

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## **b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Webberville Road, install 4" domestic water meter with backflow preventer within Webberville Road ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Webberville Road, install 2" irrigation meter with backflow preventer within Webberville Road ROW, connect to site irrigation system.
- Construct new 8" tap into water main along Webberville Road, install 8" backflow preventer within Webberville Road ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near pool site.
- Construct new 8" wastewater pipe from pool site to the wastewater main in Francisco Street, install new 48" manhole at connection to wastewater main.

## **E.5.13 Patterson**

### **Pool Recommendations**

- If this pool is to continue in operation, a new bathhouse will need to be developed.
- If the pool is to continue in operation, completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5.
- The wading pool must be replaced and include zero-depth access.

### **Site Recommendations**

- Additional parking is not required
- Reconstruct one parking space to be TAS compliant accessible spaces
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention
- Install a parking lot light

### **Existing Architectural Features**

- Shade structure: Wood pergola adjacent to the wading pool and fabric canopy entirely shading wading pool
- Office: None
- Storage: None
- Bathhouse/Family Restroom: None
- Pump House: Separate building with community mural

### **Building Repairs Recommendations**

- Pergola in need of replacing in 5 years
- Add Office
- Add Storage
- Add ADA and family restrooms
- Add bathhouse
- Pump house doors and frames in need of replacing

### **Building Recommendations**

- Total pool replacement. Construct bathhouse. Minor refurbishment to the pump house

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	1,485	4,700	\$70,500
Pool	2,731	4,100	\$820,000
Pool House (to include 2 new family restrooms)	0	1,300	\$450,000
Pump House	200	470	\$10,000
Total Impervious Cover	4,416	10,570	
Total Site Costs			\$2,210,000
Construction Cost Totals			\$3,560,500
Total with Owner Costs (add 30%)			\$4,628,650

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men*	0	0	0	0	0**
Women*		0	0	0	0**
* Nearest existing restrooms are in the park and moderately remote.					
** (2) public showers by the fence entry to the pool.					
<b>Required per existing pool configuration (55 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

### Site Recommendations (4200 Brookview Road)

#### 1. Parking

##### a. Existing Parking

- 0 standard spaces
- 1 accessible space
- 0 bicycle racks

##### b. Parking Criteria: Accessible spaces minimum (existing 0 + 1)

- Assume at least 1 accessible parking space is required.
- Assume minimum 1 bicycle parking space + 1 for Sub-Chapter E (additional 10%) = 2 total

##### c. Parking Recommendations:

- Restripe existing accessible parking space and access aisle. Install signage and wheel stop for the accessible parking space
- Additional parking is not required
- Install 1 bicycle rack
- Install 1 new parking lot light at the accessible parking space

#### 2. Access/Connectivity

##### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Brookview Road ROW sidewalk to front entrance and

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from Brookview Road to Wilshire Boulevard

- Accessible bicycle connection from Brookview Road ROW to front entrance and from Brookview Road to Wilshire Boulevard
- Accessible pedestrian connection from accessible parking space to front entrance
- Accessible pedestrian and bicycle connection to internal trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Brookview Road, Wilshire Boulevard, Airport Boulevard, Schieffer Avenue)

**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from Wilshire Boulevard along Brookview Road and from Brookview Road to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Brookview Road ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Wilshire Boulevard ROW to front entrance.
- Construct 10' wide pedestrian and bicycle sidewalk from Airport Boulevard ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Schieffer Avenue to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from internal trails to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking space to front entrance
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	20,000	sf
Pool Decks	4,700	sf
Building Roofs	1,800	sf
Total IC for Detention and WQ	26,500	sf
Pool	1,700	sf

- Construct flow splitter structure, 5,300 cf (0.20cf/sf of IC) detention volume structure, 2,880 cf (IC x 1.3") water quality treatment structure, and outfall structure for 26,500 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service

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- Provide 2 fire hydrants close to the pool building and 8" fire line
  - Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Schieffer Avenue, install 4" domestic water meter with backflow preventer within Schieffer Avenue ROW, install 4" domestic water pipe to pool site.

## **E.5.14 Ramsey**

### **Pool Recommendations**

- Maintain as is until unsustainable
- Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5

### **Site Recommendations**

- Additional parking is not required
- Reconstruct one parking space to be TAS compliant accessible spaces.
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention
- Install a parking lot light

### **Existing Architectural Features**

- Shade structure: None
- Office: None
- Storage: None
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Integrated into bathhouse building.

### **Building Repair Recommendations**

- Finishes in both restrooms are in poor condition and are in need of replacing
- Toilet partitions in need of replacing
- Toilet and lavatory plumbing fixtures in need of replacing
- Accessories in need of replacing
- Lights in need of replacing
- Door and frames in need of replacing
- Building in poor condition and has structural damage
- Building is in need of painting and major refurbishing
- Add Shade Structure
- Add Office
- Add Storage
- Add ADA and family restrooms

### **Building Recommendations**

- Total replacement of pool. Replace bathhouse and pump house (although these could be regarded as historic and be prevented from being demolished)

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	2,844	4,700	\$70,500
Pool	3,800	4,100	\$820,000
Pool House (to include 2 new family restrooms)	685	1,300	\$450,000
Pump House	Included in pool house	470	Included above
Total Impervious Cover	7,329	10,570	
Total Site Costs			\$1,850,000
Construction Cost Totals			\$3,190,500
Total with Owner Costs (add 30%)			\$4,147,650

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	300	1	1	1	0
Women		1	0	1	0
<b>Required per existing pool configuration (76 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

### Site Recommendations (4301 N. Rosedale Avenue)

#### 1. Parking

##### a. Existing Parking

- 0 standard spaces
- 1 accessible loading space
- 1 bicycle rack

##### b. Parking Criteria:

- Accessible spaces minimum (existing 0 + 1)
- Assume at least 1 accessible loading space is required.
- Assume minimum 1 bicycle parking space + 1 for Sub-Chapter E (additional 10%) = 2 total

##### c. Parking Recommendations

- Restripe existing accessible loading space and access aisle
- Reconstruct handrail on accessible ramp
- Additional parking is not required.
- Additional bicycle rack not required
- Install 1 new parking lot light at the accessible loading space

#### 2. Access/Connectivity

##### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from W. 42nd Street Road ROW sidewalk to front entrance.

- Accessible bicycle connection from W. 42nd Street Road ROW to front entrance
- Accessible pedestrian connection from accessible loading space to front entrance
- Accessible pedestrian and bicycle connection to internal trails
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (W.42nd Street, Rosedale Avenue, Burnet Road, W. 44th Street)

**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from W. 42nd Street to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Rosedale Avenue ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Burnet Road ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from W. 44th Street ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from internal trails to front entrance
- Construct new 5' wide accessible sidewalk from accessible loading space ramp to front entrance
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	13,000 sf
Pool Decks	4,700 sf
Building Roofs	1,800 sf
Total IC for Detention and WQ	19,500 sf
Pool	4,100 sf

- Construct flow splitter structure, 3,900 cf (0.20cf/sf of IC) detention volume structure, 2,120 cf (IC x 1.3") water quality treatment structure, and outfall structure for 19,500 sf of new/redeveloped impervious cover.
- Construct area inlets and 18" storm drain collector piping around the pool improvements
- Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the pool building and 8" fire line
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along W. 42nd Street,

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install 4" domestic water meter with backflow preventer within W. 42nd Street ROW, install 4" domestic water pipe to pool site.

- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along W. 42nd Street, install 2" irrigation meter with backflow preventer within W. 42nd Street ROW, connect to site irrigation system.
- Construct new 8" tap into water main along W. 42nd Street, install 8" backflow preventer within W. 42nd Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near pool site.
- Construct new 8" wastewater pipe from pool site to the wastewater main in Rosedale Avenue, install new 48" manhole at connection to wastewater main.

## **E.5.15 Reed**

### **Pool Recommendations**

- Maintain as is until unsustainable
- Completely reconstruct the pool as a Neighborhood Pool as defined in Chapter 5
- Wading pool must be replaced to include zero-depth entry
- Wading pool needs a separate filtration system

### **Site Recommendations**

- Additional parking is not required
- Reconstruct one parking space to be TAS compliant accessible spaces
- Provide accessible pedestrian and bicycle access from right-of-way
- New utility connections (domestic water, reclaimed water, fire line, fire hydrants, and sanitary sewer)
- Install stormwater detention
- Install a parking lot light

### **Existing Architectural Features**

- Shade structure: Wood pergola adjacent to wading pool but not ADA accessible
- Office: None
- Storage: Located between the two restrooms, approx. 25 sf
- Bathhouse/Family Restroom: No ADA or family restroom
- Pump House: Separate building

### **Building Repairs Recommendations**

- Pergola in need of replacing in less than 5 years
- Accessories in need of replacing
- Add lights in bathhouse
- Doors and frames in need of replacing
- Building in need of painting and refurbishing
- Add Shade Structure
- Add Office
- Add Storage
- Add ADA and family restrooms
- Pump house door and frame in need of replacing

### **Building Recommendations**

- Repurpose existing building as a staff office and storage, Add new bathhouse

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	3,501	4,700	\$70,500
Pool	2,731	4,100	\$820,000
Pool House (to include 2 new family restrooms)	220	1,300	\$450,000
Pump House	250	470	\$10,000
Total Impervious Cover	6,702	10,570	
Total Site Costs			\$2,390,000
Construction Cost Totals			\$3,740,500
Total with Owner Costs (add 30%)			\$4,862,650

### Bathroom Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	200	1	1	1	0*
Women		2	0	1	0*
<b>* (1) Public shower located adjacent to pool deck.</b>					
<b>Required per existing pool configuration (55 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (82 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

### Site Recommendations (2614 Pecos Street)

#### 1. Parking

##### a. Existing Parking

- 0 standard spaces
- 1 accessible space (parallel to curb)
- 2 bicycle racks

##### b. Parking Criteria: Accessible spaces minimum (existing 0 + 1)

- Assume at least 1 parallel accessible parking space is required.
- Assume minimum 1 bicycle parking space + 1 for Sub-Chapter E (additional 10%) = 2 total

##### c. Parking Recommendations:

- Reconstruct existing accessible parallel parking space, access aisle and curb ramp. Install accessible parking space signage and striping
- Additional parking is not required
- Additional bicycle rack not required
- Install 1 new parking lot light at the accessible parking space

#### 2. Access/Connectivity

##### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from Pecos Street ROW sidewalk to front entrance.
- Accessible bicycle connection from Pecos Street ROW to front entrance.

- Accessible pedestrian connection from accessible parking space to front entrance
- Accessible pedestrian and bicycle connection to internal trail
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (Pecos Street, Scenic Drive, Greenlee Drive)

**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from Pecos Street to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Scenic Drive ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Greenlee Drive ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from internal trail to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking space to front entrance
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria:**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0	sf
Exterior Sidewalks/Flatwork	26,000	sf
Pool Decks	4,700	sf
Building Roofs	1,800	sf
Total IC for Detention and WQ	32,500	sf
Pool	4,100	sf

- Construct flow splitter structure, 6,500 cf (0.20cf/sf of IC) detention volume structure, 3,530 cf (IC x 1.3") water quality treatment structure, and outfall structure for 32,500 sf of new/redeveloped impervious cover.
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the pool building and 8" fire line
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along Pecos Street, install 4" domestic water meter with backflow preventer within Pecos Street ROW, install 4" domestic water pipe to pool site.

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- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along Pecos Street, install 2" irrigation meter with backflow preventer within Pecos Street ROW, connect to site irrigation system.
  - Construct new 8" tap into water main along Pecos Street, install 8" backflow preventer within Pecos Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near pool site.
  - Construct new 8" wastewater pipe from pool site to the wastewater main in Pecos Street, install new 48" manhole at connection to wastewater main.

## **E.5.16 West Austin**

### **Pool Recommendations**

- Maintain as is until unsustainable
- This pool is not a candidate to serve as a typical Neighborhood Pool due to its size limitations
- Long-term this is a candidate for repurposing as there is no room for a proper bathhouse

### **Site Recommendations**

- Additional parking is not required
- Reconstruct one parking space to be TAS compliant accessible spaces.
- Provide accessible pedestrian and bicycle access from right-of-way. This may be challenging due to steep slopes
- Install stormwater detention
- Install a parking lot light

### **Existing Architectural Features**

- Shade structure: None
- Office: None
- Storage: Located in historic restroom building located just outside the pool gates, approx. 60sf.
- Bathhouse/Family Restroom: No ADA or family restroom. Adjacent, Historic restroom building is not located inside pool fence (intended for use by park).
- Pump House: Separate building

### **Building Repairs Recommendations**

- Add Shade Structure
- Add Office
- Add Storage
- Add ADA and family restrooms
- Add Bathhouse

### **Building Recommendations**

- Construct a new building to house missing features, but the existing site may be too tight for a pool restroom expansion. Historic restroom building to be refurbished

	Existing (SF)	Proposed (sf)	Renovation/ Addition Est. Cost
Deck	2,655	2,655 (existing)	\$40,000
Pool	1,500	1,500 (existing)	\$300,000
Pool House (to include 2 new family restrooms)	0	1,000	\$450,000
Pump House	1,200	1,200 (existing)	
Total Impervious Cover	5,355	6,355	
Total Site Costs			\$1,390,000
Construction Cost Totals			\$2,180,000
Total with Owner Costs (add 30%)			\$2,834,000

### Bathhouse Plumbing Fixture Requirements (Verify with Health Department)

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men *	60	1	0	1	0
Women *		1	0	1	0
<b>* Existing restrooms are not ADA compliant and are serving the park, not the pool.</b>					
<b>Required per existing pool configuration (30 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1
<b>Required when pool is replaced (30 occupants)</b>					
Men	-	1	1	1	1
Women		1	0	1	1

### Site Recommendations (1317 W. 10th Street)

#### 1. Parking

##### a. Existing Parking

- 0 standard spaces
- 0 accessible spaces
- 5 bicycle racks

##### b. Parking Criteria: Accessible spaces minimum (existing 0 + 0)

- Assume at least 1 accessible parking space is required on W. 10th Street.
- Assume minimum 1 bicycle parking space + 1 for Sub-Chapter E (additional 10%) = 2 total

##### c. Parking Recommendations

- Construct 1 accessible parking space with access aisle on W. 10th Street. Install striping and signage for accessible parking space
- Additional parking is not required
- Additional bicycle racks are not required
- Install 1 new street light at accessible parking space on W. 10th Street and 4 along accessible route from parking space to front entrance

#### 2. Access/Connectivity

##### a. Access/Connectivity Criteria: Sub-Chapter E

- Accessible pedestrian connection from W. 10th Street ROW to front entrance
- Accessible bicycle connection from W. 10th Street ROW to front entrance

- Accessible pedestrian connection from accessible parking space to front entrance
- Accessible pedestrian and bicycle connection from front entrance to adjacent properties (W. 10th Street, Maufrais Street, W. 9th Street)

**b. Access/Connectivity Recommendations**

- Construct 10' wide pedestrian and bicycle sidewalk from W. 10th Street ROW sidewalk to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from Maufrais Street ROW to front entrance
- Construct 10' wide pedestrian and bicycle sidewalk from W. 9th Street ROW to front entrance
- Construct new 5' wide accessible sidewalk from accessible parking space on W. 10th Street to front entrance
- Install wayfinding signage

**3. Drainage**

**a. Drainage Criteria**

- Provide stormwater detention for increased Q2 – Q100 peak flows created by runoff from new impervious cover
- Provide stormwater quality treatment for runoff from new impervious cover
- Provide site grading, stormwater area inlets around the pool improvements, storm drain piping to stormwater detention/water quality treatment flow splitter structure and discharge piping and outfall structure.

**b. Drainage Recommendations**

- New/Redeveloped Impervious Cover:

Parking Expansion	0 sf
Exterior Sidewalks/Flatwork	6,300 sf
Pool Decks	0 sf
Building Roofs	1,000 sf
Total IC for Detention and WQ	7,300 sf
Pool	0 sf

- Construct flow splitter structure, 1,460 cf (0.20cf/sf of IC) detention volume structure, 800 cf (IC x 1.3") water quality treatment structure, and outfall structure for 7,300 sf of new/redeveloped impervious cover
  - Construct area inlets and 18" storm drain collector piping around the pool improvements
  - Construct site grading to drain runoff to storm drain inlets

**4. Water Service**

**a. Water Service Criteria**

- Provide 4" water line/meter for domestic water service
- Provide 2" water line/meter for irrigation water service
- Provide 2 fire hydrants close to the building and 8" fire line
- Provide 8" wastewater line for wastewater service

**b. Water Service Recommendations**

- Construct new 4" tap into new 8" fire hydrant lead that taps into water main along W. 10th Street, install 4" domestic water meter with backflow preventer within W. 10th Street ROW, install 4" domestic water pipe to pool site.
- Construct new 2" tap into new 8" fire hydrant lead that taps into water main along W. 10th Street,

install 2" irrigation meter with backflow preventer within W. 10th Street, connect to site irrigation system.

- Construct new 8" tap into water main along W. 10th Street, install 8" backflow preventer within W. 10th Street ROW, install 8" fire hydrant lead pipe, install 2 fire hydrants near the pool site.
- Construct new 8" wastewater pipe from pool site to the wastewater main in W. 10th Street, install new 48" manhole at connection to wastewater main.

## E.5.17 Westenfield

### Features:

- Newly constructed, not a part of this report. Project information listed below for reference.
- Water area: 4,068sf
- Pool deck area: 4,696sf
- Gross building area: 2,062sf
  - First Aid: 80sf
  - Storage: 80sf
  - Pump house: 1,230sf
- Fenced area: 18,275sf

	Approximate SF	Toilet	Urinal	Lavatory	Shower
<b>Existing</b>					
Men	840	1	1	2	1
Women		2	0	2	1
Men's Family	120	1	1	1	1
Women's Family	120	1	0	1	1

### Site Recommendations (2008 Enfield Road)

#### 1. SPC-2011-0315C

Westenfield Pool was recently renovated under City of Austin Site Development Permit SPC-2011-0315C. According to the SPC-2011-0315C permit drawings:

- Parking: 1 standard space + 1 accessible space on Bridle Path/Sharon Lane (about 3000 feet from the front entrance to the pool)
- 10 bicycle space parking at the pool entrance
- Approximately 25 parallel parking spaces along the shoulder of Winsted Lane (per aerial photo)

#### a. Access/Connectivity

- Sidewalk along Enfield Road frontage, adjacent to pool facility
- Pedestrian and bicycle connections (internal circulation routes) to Enfield Road and Bridle Path/Sharon Lane
- Accessible route from accessible parking space to front entrance
- Pedestrian and bicycle connections to the park's internal circulation routes
- No sidewalk along Winsted Lane frontage

- 
- Limited curb cuts

**b. Drainage**

- 12" storm drain and pool deck drain line, with drainage swale, discharging to local storm drain system at intersection of Enfield Road and Winsted Lane
- No existing on-site stormwater detention or water quality treatment

**c. Water Service**

- 4" domestic water service tap into existing water main along Enfield Road, 4" service line, 4" water meter, 4" service to pool
- 1-1/2" irrigation water service tap into 4" water service pipe, 1" irrigation water meter with backflow preventer
- Existing 2 fire hydrants off water main along Enfield Road, adjacent to pool site

**2. Other Recommendations**

- No site civil improvements outside the pool perimeter fence are recommended
- It is assumed that as a Neighborhood Pool, additional parking is not required. However, if pool improvements expand its use, then at least 1 additional accessible parking space will be required.

**Aquatic Master Plan**

**Balcones**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	400	400	LF	Remove P.C. Concrete Curb	\$ 20.00	\$8,000.00	to expand parking lot and rebuilt driveway. Quantity take off north and west curb
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	1003	1100	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$22,000.00	Removed existing driveway, and existing sidewalk in front of building
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	2030.617284	2,030	CY	Excavation, Unclassified	\$ 52.00	\$105,560.00	33120 sf + 40' x 200' new driveway and assuming 2in HMAc with 8" base and 6" subgrade
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	4568.888889	4,570	SY	Sub-Grade Preparation	\$ 9.00	\$41,130.00	33120 sf + 40' x 200' new driveway with 6" subgrade
203S-A8	4568.888889	4,570	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$69,921.00	33120 sf + 40' x 200' new driveway with 6" subgrade
210S-A8	1015.308642	1,020	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$42,840.00	33120 sf + 40' x 200' new driveway with 8" base
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2	4568.888889	4,570	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$77,690.00	33120 sf + 40' x 200' new driveway with 2 in HMAc
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 173,700.00	\$173,700.00	\$3.00/sf x 59,700sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 249,000.00	\$249,000.00	\$4.30/sf x 57,900sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A	1200	1,200	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$21,600.00	assume it is 3 times the removed
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	3730	3,800	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$45,600.00	From Amherst to building entrance on both side of ICR
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1	4	4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	two at ROW, two onsite
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	

432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$	2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$	2,300.00	\$0.00	
432S-SAC-3	3	3	EA	Streetscape Bicycle Rack	\$	800.00	\$2,400.00	3 new ones. Existing ones may not be
432S-SAC-4			EA	Streetscape Trash Receptacle	\$	2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$	6,600.00	\$0.00	
432S-PRC-1			LF	Pedestrian ADA Railing	\$	102.00	\$0.00	
SP432S-K			EA	Art Kiosks	\$	25,000.00	\$0.00	
433S-C	1000	100	SF	Type II P.C. Concrete Driveway	\$	11.00	\$1,100.00	Reconstructed driveway 40' wide and 25' deep
435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S	3	3	EA	Parking Lot Bumper Curbs	\$	120.00	\$360.00	for accessible spaces
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW	1	1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	for 8" wastewater line
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48	1	1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	SD connection
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	at connection on Amherst Drive
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection on Amherst Drive
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	at SD outfall on Walnut Creek
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	inlets around pool improvements
508S-I10S		6	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$32,400.00	for parking lot expansion
509S-1		1,600	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$3,200.00	
510-AW2C			LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$0.00	irrigation
510-AW-4-350		400	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$56,000.00	Domestic Line
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	391	400	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$77,200.00	Fire line
510-ASW18		400	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$54,400.00	SD collection around pool improvements
510-ASW24		400	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$62,800.00	for parking lot expansion. The site drains directly to walnut creek?
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	

510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	
510-AWW8		400	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	125.00	\$50,000.00	Wastewater service line
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$	4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connection New 8" Water Service to 4" Private Service	\$	6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2	1	1	EA	New Water Meter, 2 Inch Meter and Water Capital Recover Fee	\$	55,000.00	\$55,000.00	Irrigation meter/tap fee
SP510-BW-M4	1	1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$	321,000.00	\$321,000.00	Domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$	2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$	4,600.00	\$4,600.00	connect to 8" main on Amherst
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$	3,100.00	\$0.00	
510-JW8X8	1	1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$	3,300.00	\$3,300.00	the other main is 36" CSC
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$	4,600.00	\$0.00	
510-KW	2	2	TON	Ductile Iron Fittings	\$	11,500.00	\$23,000.00	5 lb/ft
511S-A2		2	EA	Valves, Gate Type, 2" Diameter	\$	1,000.00	\$2,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$	1,200.00	\$0.00	
511S-A4	1.6	2	EA	Valves, Gate Type, 4" Diameter	\$	1,500.00	\$3,000.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$	1,900.00	\$3,800.00	for fire hydrants
511S-A8	1.6	2	EA	Valves, Gate Type, 8" Diameter	\$	2,300.00	\$4,600.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$	5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer for Irrigation Service )	\$	4,000.00	\$4,000.00	
511S-C8		1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer for Fire Service)	\$	16,000.00	\$16,000.00	
551			LF	Pipe Underdrains (for Tree Wells)	\$	50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$	200.00	\$800.00	
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$	320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$	7.00	\$0.00	
604S-A		4,000	SY	Non-Native Seeding for Erosion Control Method	\$	6.00	\$24,000.00	
604S-E			SY	Mulch, Hardwood	\$	23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$	24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$	23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	24.86666667	25	EA	Trees, 20 Gal	\$	600.00	\$15,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$	50.00	\$0.00	
608S-2			LS	Irrigation System			\$0.00	
609S-C			SY	Native Seeding for Erosion Control	\$	7.00	\$0.00	
610S-A		400	LF	Tree Protective Fencing Type A Chain Link Fence	\$	4.00	\$1,600.00	
610S-R	7	7	EA	Removal of Existing Trees	\$	570.00	\$3,990.00	
SP628S-C		9	EA	Filter Curb Inlet Protection	\$	120.00	\$1,080.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$	9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$	39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$	50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$	1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$	4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$	114.00	\$0.00	

700S-TM		1	LS	Total Mobilization Payment	\$ 109,000.00	\$109,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		160	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$96,000.00	160 CD/Block
SP803S-PS		70	CD	Portable Changeable Message Signs	\$ 120.00	\$8,400.00	70 CD/Block
824S		10	EA	Traffic Signs	\$ 400.00	\$4,000.00	
827S		4	EA	Bicycle Lane Signage	\$ 400.00	\$1,600.00	
829S			LF	Bicycle Lane Markings	\$ 400.00	\$0.00	
871S-A4W	706	720	LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$2,160.00	
871S-A24W			LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W			EA	Reflectorized Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$0.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B	5555.555556	5,600	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$117,600.00	10' wide connect to surrounding streets
16550S		7	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$11,200.00	
		7	EA	Light Pole and LED Light	\$ 3,700.00	\$25,900.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		7	EA	Electrical Pull Box	\$ 1,200.00	\$8,400.00	
		700	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$86,100.00	100' per light pole

SUBTOTAL	\$2,278,011.00
CONTINGENCY	\$569,502.75 25%
<b>TOTAL</b>	<b>\$2,847,513.75</b>

**Aquatic Master Plan**

**Big Stacy**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		475	LF	Remove P.C. Concrete Curb	\$ 20.00	\$9,500.00	replace existing curb/gutter.
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	1625	1700	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$34,000.00	flatwork and ADA parking
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	107.654321	110	CY	Excavation, Unclassified	\$ 52.00	\$5,720.00	flatwork and ADA parking
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	242.2222222	250	SY	Sub-Grade Preparation	\$ 9.00	\$2,250.00	flatwork and ADA parking
203S-A8		250	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$3,825.00	flatwork and ADA parking
210S-A8	53.82716049	55	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$2,310.00	flatwork and ADA parking
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		480	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$8,160.00	ADA parking - reconstruct ex. spaces
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 18,000.00	\$18,000.00	\$3/sf x 6000sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 25,800.00	\$25,800.00	\$4.30/sf x 6000sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		450	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$8,100.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	6000	6,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$72,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		3	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$5,400.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		2	EA	Parking Lot Bumper Curbs	\$	120.00	\$240.00	at ADA parking spaces
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to existing site drainage
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	on E. Live Oak Street
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	SD connection
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connection to WW on Live Oak
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	MH on E. Live Oak Street
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	outfall at Blunn Creek
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking spaces
509S-1		1,100	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,200.00	
510-AW2C		60	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$5,460.00	irrigation service
510-AW-4-350		60	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$8,400.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		150	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$28,950.00	fire line and main tap
510-ASW18		400	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$54,400.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	discharge to Blunn Creek
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		150	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$18,750.00	wastewater service
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and Water Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	at fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer for Irrigation Service)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer for Fire Service)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 200.00	\$800.00	outfall at Blunn Creek
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A		3,700	SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$22,200.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	40	5	EA	Trees, 20 Gal	\$ 600.00	\$3,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		250	SY	Native Seeding for Erosion Control	\$ 7.00	\$1,750.00	
610S-A		250	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$1,000.00	
610S-R		5	EA	Removal of Existing Trees	\$ 570.00	\$2,850.00	
SP628S-C		4	EA	Filter Curb Inlet Protection	\$ 120.00	\$480.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 54,000.00	\$54,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		2	EA	Bicycle Lane Signage	\$ 400.00	\$800.00	
829S		450	LF	Bicycle Lane Markings	\$ 8.00	\$3,600.00	
871S-A4W		50	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$150.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		2	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$800.00	
874S-A		36	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$432.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		3	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$4,800.00	
		3	EA	Light Pole and LED Light	\$ 3,700.00	\$11,100.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		3	EA	Electrical Pull Box	\$ 1,200.00	\$3,600.00	
		300	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$36,900.00	100' per light pole.

SUBTOTAL	<b>\$1,119,707.00</b>
CONTINGENCY	<b>\$279,926.75</b> 25%
TOTAL	<b>\$1,399,633.75</b>

**Aquatic Master Plan**

**Brentwood**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity	Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	70		70	LF	Remove P.C. Concrete Curb	\$ 20.00	\$1,400.00	for ADA drop-off space
104S-B				SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	400		400	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$8,000.00	
SP104S				SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB				EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
				CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
				LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
				LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
				EA	Demolition, Light Pole	\$ 600.00	\$0.00	
				LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
				CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
				CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
				TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	360.4938272		370	CY	Excavation, Unclassified	\$ 52.00	\$19,240.00	
120S-A				CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A				CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T				CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A				CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	811.1111111		820	SY	Sub-Grade Preparation	\$ 9.00	\$7,380.00	
203S-A8			820	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$12,546.00	
210S-A8	180		180	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$7,560.00	
340S-B-C3				SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2			45	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$765.00	reconstruct for ADA drop-off
340S-B-C1.5				SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A				SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY				CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D			1	EA	Concrete Structure, Storm Water Deetention	\$ 41,400.00	\$41,400.00	\$3/sf x 13800sf IC
403S-EA-WQ			1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 59,340.00	\$59,340.00	\$4.30/sf x 13800sf IC
414S-C				SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A			70	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$1,260.00	at ADA drop-off space
430S-E				LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	6875		6,900	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$82,800.00	
432S-6				SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1			2	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$3,600.00	
432S-SAC-1				EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1				EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2				EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			2	EA	Streetscape Bicycle Rack	\$ 800.00	\$1,600.00	
432S-SAC-4				EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C				EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1			50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	ADA dropp-off space ramp
SP432S-K				EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C				SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to SD on Arroyo Seco
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Arroyo Seco
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD on Arroyo Seco
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Arroyo Seco
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	connect to WW main on Arroyo Seco
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	outfall at Arroyo Seco
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA drop-off space
509S-1		900	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$1,800.00	
510-AW2C		60	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$5,460.00	irrigation service
510-AW-4-350		60	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$8,400.00	domestic service
510-AW-6-350			LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AW-8-350		120	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$23,160.00	main service
510-ASW18		320	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$43,520.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	outfall to Arroyo Seco
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		140	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$17,500.00	WW service to Arroyo Seco WW main
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Arroyo Seco
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Arroyo Seco
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6			EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$0.00	
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B			EA	Fire Hydrant	\$ 5,200.00	\$0.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1		EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$0.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	at SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	45.83333333	46	EA	Trees, 20 Gal	\$ 600.00	\$27,600.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		800	SY	Native Seeding for Erosion Control	\$ 7.00	\$5,600.00	
610S-A		750	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$3,000.00	
610S-R		5	EA	Removal of Existing Trees	\$ 570.00	\$2,850.00	
SP628S-C		4	EA	Filter Curb Inlet Protection	\$ 120.00	\$480.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S	1160	2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 54,000.00	\$54,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block

824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	
827S		1	EA	Bicycle Lane Signage	\$ 400.00	\$400.00	
829S		550	LF	Bicycle Lane Markings	\$ 8.00	\$4,400.00	
871S-A4W		100	LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mills in Thickness, White in Color	\$ 3.00	\$300.00	
871S-A24W			LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mills in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	Reflectorized Type 1 Pavement Marking, Symbol, 100 Mills in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B	740.7407407	750	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$15,750.00	10' wide connect to surrounding streets
16550S		2	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$3,200.00	
		2	EA	Light Pole and LED Light	\$ 3,700.00	\$7,400.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		2	EA	Electrical Pull Box	\$ 1,200.00	\$2,400.00	
		200	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$24,600.00	100' per pole

SUBTOTAL	\$1,114,731.00
CONTINGENCY	\$278,682.75 25%
<b>TOTAL</b>	<b>\$1,393,413.75</b>

**Aquatic Master Plan**

**Canyon Vista**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		400	LF	Remove P.C. Concrete Curb	\$ 20.00	\$8,000.00	reconstruct along ADA parking spaces
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C		2500	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$50,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	246.9135802	250	CY	Excavation, Unclassified	\$ 52.00	\$13,000.00	
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	555.5555556	560	SY	Sub-Grade Preparation	\$ 9.00	\$5,040.00	
203S-A8		560	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$8,568.00	
210S-A8		125	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$5,250.00	
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		90	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$1,530.00	reconstruct ADA parking spaces
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 34,500.00	\$34,500.00	\$3/sf x 11500sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 49,500.00	\$49,500.00	\$4.30/sf x 11500sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		400	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$7,200.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5		5,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$60,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		5	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$9,000.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3		4	EA	Streetscape Bicycle Rack	\$ 800.00	\$3,200.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		150	LF	Pedestrian ADA Railing	\$ 102.00	\$15,300.00	access ramp to pool
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		3	EA	Parking Lot Bumper Curbs	\$	120.00	\$360.00	ADA parking spaces
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Yaupon
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	SD connection
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Yaupon
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at MH on Yaupon
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking spaces
509S-1		840	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$1,680.00	
510-AW2C		60	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$5,460.00	irrigation service
510-AW-4-350		60	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$8,400.00	domestic service
510-AW-6-350			LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AW-8-350		120	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$23,160.00	main service
510-ASW18		200	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$27,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		200	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$25,000.00	WW service to Yaupon WW main
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connection to WW main on Yaupon
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connection to W main on Yaupon
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6			EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$0.00	
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B			EA	Fire Hydrant	\$ 5,200.00	\$0.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation line
511S-C8	1		EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$0.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	at SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	0	34	EA	Trees, 20 Gal	\$ 600.00	\$20,400.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		250	SY	Native Seeding for Erosion Control	\$ 7.00	\$1,750.00	at SD outfall
610S-A		400	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$1,600.00	
610S-R		2	EA	Removal of Existing Trees	\$ 570.00	\$1,140.00	
SP628S-C		4	EA	Filter Curb Inlet Protection	\$ 120.00	\$480.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 49,000.00	\$49,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S			EA	Bicycle Lane Signage	\$ 400.00	\$0.00	
829S			LF	Bicycle Lane Markings	\$ 8.00	\$0.00	
871S-A4W		50	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$150.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		3	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$1,200.00	
874S-A		50	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$600.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S			EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$0.00	
			EA	Light Pole and LED Light	\$ 3,700.00	\$0.00	
			EA	Electrical Panel Enclosure	\$ 21,000.00	\$0.00	
			EA	Electrical Pull Box	\$ 1,200.00	\$0.00	
			LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$0.00	
					SUBTOTAL	\$1,027,188.00	
					CONTINGENCY	\$256,797.00	
					<b>TOTAL</b>	<b>\$1,283,985.00</b>	

**Aquatic Master Plan**

Civitan

**Doucet + Chan, a Division of Doucet & Associates, Inc.**  
Texas Registration No. 3937

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		130	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,600.00	reconstruction at ADA parking spaces
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	5750	5800	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$116,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	469.1358025	470	CY	Excavation, Unclassified	\$ 52.00	\$24,440.00	
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1055.555556	1,060	SY	Sub-Grade Preparation	\$ 9.00	\$9,540.00	
203S-A8		1,060	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$16,218.00	
210S-A8	234.5679012	240	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$10,080.00	
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		1,060	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$18,020.00	
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 41,700.00	\$41,700.00	\$3/sf x 13900sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 59,800.00	\$59,800.00	\$4.30/sf x 13900sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		130	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$2,340.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5		7,100	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$85,200.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		3	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$5,400.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3		1	EA	Streetscape Bicycle Rack	\$ 800.00	\$800.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connection to WW main on Vargas
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	SD connection
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connection to WW main on Vargas
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	connection to WW main on Vargas
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		800	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$1,600.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350			LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AW-8-350		100	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$19,300.00	main service
510-ASW18		200	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$27,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		200	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$25,000.00	WW service to Vargas
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Vargas
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Vargas
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6			EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$0.00	
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B			EA	Fire Hydrant	\$ 5,200.00	\$0.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1		EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$0.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	0	47	EA	Trees, 20 Gal	\$ 600.00	\$28,200.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		1,060	SY	Native Seeding for Erosion Control	\$ 7.00	\$7,420.00	
610S-A		550	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$2,200.00	
610S-R		2	EA	Removal of Existing Trees	\$ 570.00	\$1,140.00	
SP628S-C		4	EA	Filter Curb Inlet Protection	\$ 120.00	\$480.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 58,000.00	\$58,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		40	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$24,000.00	160 CD/Block
SP803S-PS		18	CD	Portable Changeable Message Signs	\$ 120.00	\$2,160.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S			EA	Bicycle Lane Signage	\$ 400.00	\$0.00	
829S		600	LF	Bicycle Lane Markings	\$ 8.00	\$4,800.00	
871S-A4W		200	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$600.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W			EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$0.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		2	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$3,200.00	
		2	EA	Light Pole and LED Light	\$ 3,700.00	\$7,400.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		2	EA	Electrical Pull Box	\$ 1,200.00	\$2,400.00	
		200	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$24,600.00	100' per light pole
					SUBTOTAL	\$1,206,808.00	
					CONTINGENCY	\$301,702.00	25%
					TOTAL	<b>\$1,508,510.00</b>	

**Aquatic Master Plan**

**Dick Nichols**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A			LF	Remove P.C. Concrete Curb	\$ 20.00	\$0.00	
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C			SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$0.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A			CY	Excavation, Unclassified	\$ 52.00	\$0.00	
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S		280	SY	Sub-Grade Preparation	\$ 9.00	\$2,520.00	
203S-A8		280	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$4,284.00	
210S-A8		62	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$2,604.00	
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2			SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 24,000.00	\$24,000.00	\$3/sf x 8000sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 34,400.00	\$34,400.00	\$4.30/sf x 8000sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A			LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$0.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	2500	2,500	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$30,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1	4	5	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$9,000.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Beckett
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connection to WW main on Beckett
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Beckett
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S			EA	Inlet, Standard 10 Foot	\$	5,400.00	\$0.00	
509S-1		2,040	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$4,080.00	
510-AW2C		60	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$5,460.00	irrigation service
510-AW-4-350	500	500	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$70,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	500	500	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$96,500.00	water main service
510-ASW18		200	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$27,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8	500	500	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$62,500.00	WW service to main on Beckett
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Beckett
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Beckett
510-JW8X12			EA	Wet Connections, 8" Dia. x 12" Dia.			
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	2	2	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$3,000.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	2	2	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$4,600.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	16.66666667	17	EA	Trees, 20 Gal	\$ 600.00	\$10,200.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2			LS	Irrigation System		\$0.00	
609S-C		250	SY	Native Seeding for Erosion Control	\$ 7.00	\$1,750.00	SD outfall
610S-A		600	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$2,400.00	
610S-R		2	EA	Removal of Existing Trees	\$ 570.00	\$1,140.00	
SP628S-C		4	EA	Filter Curb Inlet Protection	\$ 120.00	\$480.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 53,000.00	\$53,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond			EA	Bond Project Sign	\$ 700.00	\$0.00	
803S-SF		1	LF	Safety Fence	\$ 3.00	\$3.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		36	CD	Portable Changeable Message Signs	\$ 120.00	\$4,320.00	70 CD/Block

824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	
827S			EA	Bicycle Lane Signage	\$ 400.00	\$0.00	
829S			LF	Bicycle Lane Markings	\$ 400.00	\$0.00	
871S-A4W		1,370	LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mills in Thickness, White in Color	\$ 3.00	\$4,110.00	
871S-A24W			LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mills in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W			EA	Reflectorized Type 1 Pavement Marking, Symbol, 100 Mills in Thickness, White in Color	\$ 400.00	\$0.00	
874S-A		1,370	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$16,440.00	
1301S-B	1111.111111	1,200	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$25,200.00	10' wide connect to surrounding streets (check if needed)
16550S			EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$0.00	
			EA	Light Pole and LED Light	\$ 3,700.00	\$0.00	
			EA	Electrical Panel Enclosure	\$ 21,000.00	\$0.00	
			EA	Electrical Pull Box	\$ 1,200.00	\$0.00	
			LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$0.00	
					SUBTOTAL	\$1,112,631.00	
					CONTINGENCY	\$278,157.75	25%
					TOTAL	<b>\$1,390,788.75</b>	

**Aquatic Master Plan**

Dittmar

**Doucet + Chan, a Division of Doucet & Associates, Inc.**  
Texas Registration No. 3937

Item No.	Quantity	Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	325		350	LF	Remove P.C. Concrete Curb	\$ 20.00	\$7,000.00	at ADA parking reconstruction
104S-B				SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	5150		5200	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$104,000.00	
SP104S				SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB				EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
				CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
				LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
				LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
				EA	Demolition, Light Pole	\$ 600.00	\$0.00	
				LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
				CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
				CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
				TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	256.7901235		260	CY	Excavation, Unclassified	\$ 52.00	\$13,520.00	5200 sf assuming 2in HMAC with 8in base and 6in subgrade
120S-A				CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A				CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T				CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A				CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	577.7777778		600	SY	Sub-Grade Preparation	\$ 9.00	\$5,400.00	5200 sf with 6in subgrade
203S-A8			600	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$9,180.00	see above item
210S-A8	128.3950617		130	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$5,460.00	5200 sf with 8in base
340S-B-C3				SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2	577.7777778		600	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$10,200.00	5200 sf with 2in HMAC
340S-B-C1.5				SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A				SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY				CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D			1	EA	Concrete Structure, Storm Water Detention	\$ 54,000.00	\$54,000.00	\$3/sf x 18000sf IC
403S-EA-WQ			1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 77,400.00	\$77,400.00	\$4.30/sf x 18000sf IC
414S-C				SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A	1050		1,100	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$19,800.00	3 times the removed (350 LF)
430S-E				LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5			5,200	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$62,400.00	
432S-6				SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1			4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1				EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1				EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2				EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3				EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4				EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C				EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1			300	LF	Pedestrian ADA Railing	\$ 102.00	\$30,600.00	
SP432S-K				EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C				SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		5	EA	Parking Lot Bumper Curbs	\$	120.00	\$600.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to on-site WW main
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$0.00	
506-MWW60		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$8,000.00	connect to on-site WW main
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to on-site WW main
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		2,180	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$4,360.00	
510-AW2C		300	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$27,300.00	irrigation service
510-AW-4-350		300	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$42,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		100	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$19,300.00	main service
510-ASW18		600	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$81,600.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		600	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$75,000.00	WW service to on-site main
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connection to WW main on site
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connection to W main on Dittmar
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$32,775.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	0	35	EA	Trees, 20 Gal	\$ 600.00	\$21,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		250	SY	Native Seeding for Erosion Control	\$ 7.00	\$1,750.00	at SD outfall
610S-A		1,200	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$4,800.00	
610S-R			EA	Removal of Existing Trees	\$ 570.00	\$0.00	
SP628S-C		3	EA	Filter Curb Inlet Protection	\$ 120.00	\$360.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 70,000.00	\$70,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		160	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$96,000.00	160 CD/Block
SP803S-PS		70	CD	Portable Changeable Message Signs	\$ 120.00	\$8,400.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		1	EA	Bicycle Lane Signage	\$ 400.00	\$400.00	
829S			LF	Bicycle Lane Markings	\$ 400.00	\$0.00	
871S-A4W		350	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$1,050.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		5	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$2,000.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B	166.6666667	200	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$4,200.00	10' wide connect to surrounding streets
16550S			EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$0.00	
			EA	Light Pole and LED Light	\$ 3,700.00	\$0.00	
			EA	Electrical Panel Enclosure	\$ 21,000.00	\$0.00	
			EA	Electrical Pull Box	\$ 1,200.00	\$0.00	
			LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$0.00	
					SUBTOTAL	\$1,457,995.00	
					CONTINGENCY	\$364,498.75	
					<b>TOTAL</b>	<b>\$1,822,493.75</b>	

**Aquatic Master Plan**

Dottie Jordan

Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937

Item No.	Quantity	Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A			100	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,000.00	removal at new curb ramps
104S-B				SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	1500		1500	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$30,000.00	
SP104S				SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB				EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
				CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
				LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
				LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
				EA	Demolition, Light Pole	\$ 600.00	\$0.00	
				LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
				CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
				CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
				TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	229.1358025		230	CY	Excavation, Unclassified	\$ 52.00	\$11,960.00	
120S-A				CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A				CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T				CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A				CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	515.5555556		1,120	SY	Sub-Grade Preparation	\$ 9.00	\$10,080.00	
203S-A8			1,120	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$17,136.00	
210S-A8	114.5679012		250	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$10,500.00	
340S-B-C3				SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2				SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5				SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A				SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY				CY	Concrete Structure, _____		\$0.00	
403S-EA-D			1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 49,500.00	\$49,500.00	\$3/sf x 16500sf IC
403S-EA-WQ			1	EA	Concrete Structure, Storm Water Detention	\$ 70,950.00	\$70,950.00	\$4.30/sf x 16500sf IC
414S-C				SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A				LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$0.00	
430S-E				LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	9962.5		10,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$120,000.00	
432S-6				SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1			6	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$10,800.00	
432S-SAC-1				EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1				EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2				EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3				EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4				EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C				EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1			100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K				EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C				SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Loyola
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	Connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Loyola
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Loyola
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,160	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,320.00	
510-AW2C	150	150	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$13,650.00	irrigation service
510-AW-4-350	100	100	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$14,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	210	210	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$40,530.00	main service
510-ASW18	140	200	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$27,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		220	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$27,500.00	WW service to main on Loyola
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Loyola
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Loyola
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW	0.155	1.0	TON	Ductile Iron Fittings	\$ 11,500.00	\$11,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0.4	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0.84	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8		1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	at SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	66.41666667	67	EA	Trees, 20 Gal	\$ 600.00	\$40,200.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		600	SY	Native Seeding for Erosion Control	\$ 7.00	\$4,200.00	
610S-A		1,000	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$4,000.00	
610S-R		67	EA	Removal of Existing Trees	\$ 570.00	\$38,190.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 65,000.00	\$65,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		5	EA	Bicycle Lane Signage	\$ 400.00	\$2,000.00	
829S		1,100	LF	Bicycle Lane Markings	\$ 8.00	\$8,800.00	
871S-A4W		480	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$1,440.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		2	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$800.00	
874S-A		480	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$5,760.00	
1301S-B	1106.944444	1,200	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$25,200.00	10' wide connect to surrounding streets
16550S		3	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$4,800.00	
		3	EA	Light Pole and LED Light	\$ 3,700.00	\$11,100.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		3	EA	Electrical Pull Box	\$ 1,200.00	\$3,600.00	
		300	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$36,900.00	100' per light pole
					SUBTOTAL	\$1,362,496.00	
					CONTINGENCY	\$340,624.00	
					<b>TOTAL</b>	<b>\$1,703,120.00</b>	

**Aquatic Master Plan**

**Dove Springs**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity	Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	550		600	LF	Remove P.C. Concrete Curb	\$ 20.00	\$12,000.00	removal at new curb ramps
104S-B				SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	3600		3600	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$72,000.00	
SP104S				SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB				EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
				CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
				LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
				LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
				EA	Demolition, Light Pole	\$ 600.00	\$0.00	
				LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
				CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
				CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
				TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	311.1111111		130	CY	Excavation, Unclassified	\$ 52.00	\$6,760.00	
120S-A				CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A				CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T				CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A				CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	400		340	SY	Sub-Grade Preparation	\$ 9.00	\$3,060.00	
203S-A8			340	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$5,202.00	
210S-A8	88.88888889		74	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$3,108.00	
340S-B-C3				SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2				SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5				SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A				SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY				CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D			1	EA	Concrete Structure, Storm Water Detention	\$ 40,500.00	\$40,500.00	\$3/sf x 13500sf IC
403S-EA-WQ			1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 58,050.00	\$58,050.00	\$4.30/sf x 13500sf IC
414S-C				SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A			600	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$10,800.00	
430S-E				LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	3000		3,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$36,000.00	
432S-6				SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1			4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1				EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1				EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2				EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3				EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4				EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C				EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1			50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K				EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C				SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW			EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$0.00	
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$0.00	
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M			EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$0.00	
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool area
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		2,280	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$4,560.00	
510-AW2C		150	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$13,650.00	irrigation service
510-AW-4-350		150	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$21,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		200	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$38,600.00	main service
510-ASW18		1,500	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$204,000.00	improve drainage around pool area
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8			LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	125.00	\$0.00	
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$	4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$	6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$	55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$	321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$	2,000.00	\$0.00	
510-BWW8x6			EA	Connecting New 8" Wastewater Service to Existing Private Service	\$	4,600.00	\$0.00	
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$	3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$	3,300.00	\$3,300.00	connect to W main on site
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$	4,600.00	\$0.00	
510-KW		1	TON	Ductile Iron Fittings	\$	11,500.00	\$11,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$	1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$	1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$	1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$	1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$	2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$	5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$	4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$	16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$	50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$	140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$	320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$	7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$	6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$	23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$	24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$	23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	20	20	EA	Trees, 20 Gal	\$	600.00	\$12,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$	50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$	10,000.00	\$10,000.00	
609S-C		250	SY	Native Seeding for Erosion Control	\$	7.00	\$1,750.00	at SD outfall
610S-A		500	LF	Tree Protective Fencing Type A Chain Link Fence	\$	4.00	\$2,000.00	
610S-R		2	EA	Removal of Existing Trees	\$	570.00	\$1,140.00	
SP628S-C		5	EA	Filter Curb Inlet Protection	\$	120.00	\$600.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$	9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$	39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$	50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$	1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$	4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$	114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$	69,000.00	\$69,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$	20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$	1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$	2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$	700.00	\$700.00	
803S-SF			LF	Safety Fence	\$	3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$	400.00	\$0.00	
SP803S-CD		160	CD	Barricades, Signs, and Traffic Handling.	\$	600.00	\$96,000.00	160 CD/Block
SP803S-PS		70	CD	Portable Changeable Message Signs	\$	120.00	\$8,400.00	70 CD/Block
824S		4	EA	Traffic Signs	\$	400.00	\$1,600.00	

827S			EA	Bicycle Lane Signage	\$ 400.00	\$0.00	
829S			LF	Bicycle Lane Markings	\$ 400.00	\$0.00	
871S-A4W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$0.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W			EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$0.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B	1527.777778	1,600	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$33,600.00	10' wide connect to surrounding streets
16550S		5	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$8,000.00	
		5	EA	Light Pole and LED Light	\$ 3,700.00	\$18,500.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		5	EA	Electrical Pull Box	\$ 1,200.00	\$6,000.00	
		500	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$61,500.00	100' per light pole
					SUBTOTAL	\$1,431,420.00	
					CONTINGENCY	\$357,855.00	
					<b>TOTAL</b>	<b>\$1,789,275.00</b>	

**Aquatic Master Plan**

**Garrison**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	600	600	LF	Remove P.C. Concrete Curb	\$ 20.00	\$12,000.00	existing one side of driveway and one side of existing parking lot.
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	500	500	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$10,000.00	existing 25' driveway to be demolished
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	2289.777778	3,100	CY	Excavation, Unclassified	\$ 52.00	\$161,200.00	46368 sf new parking lot + 40'x300' HMAC new driveway + 3500 sf sidewalks + 800sf concrete new driveway) = 62,668 sf x 16" total depth
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	5152	6,970	SY	Sub-Grade Preparation	\$ 9.00	\$62,730.00	62668sf
203S-A8	5152	6,970	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$106,641.00	
210S-A8	1144.888889	1,550	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$65,100.00	62668sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2	5152	6,490	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$110,330.00	46368sf + 40'x300' = 58368sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure,	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 252,600.00	\$252,600.00	\$3/sf x 84200sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 362,060.00	\$362,060.00	\$4.30/sf x 84200sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A	2600	2,600	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$46,800.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	3500	3,500	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$42,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1	4	4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	

432S-SAC-4			EA	Streetscape Trash Receptacle	\$	2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$	6,600.00	\$0.00	
432S-PRC-1			LF	Pedestrian ADA Railing	\$	102.00	\$0.00	
SP432S-K			EA	Art Kiosks	\$	25,000.00	\$0.00	
433S-C	800	800	SF	Type II P.C. Concrete Driveway	\$	11.00	\$8,800.00	new driveway within Manchaca ROW
435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S	5	5	EA	Parking Lot Bumper Curbs	\$	120.00	\$600.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW			EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$0.00	
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$0.00	
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M			EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$0.00	
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		5	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$28,000.00	improve drainage around pool site
508S-I10S		5	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$27,000.00	for parking lot expansion and at ADA parking spaces
509S-1		2,780	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$5,560.00	
510-AW2C		300	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$27,300.00	irrigation service
510-AW-4-350	300	300	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$42,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	600	600	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$115,800.00	main service
510-ASW18		1,200	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$163,200.00	improve drainage around pool site
510-ASW24		300	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$47,100.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	

510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	
510-AWW8			LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	125.00	\$0.00	
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$	4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$	6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2	1	1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$	55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4	1	1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$	321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$	2,000.00	\$0.00	
510-BWW8x6			EA	Connecting New 8" Wastewater Service to Existing Private Service	\$	4,600.00	\$0.00	
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$	3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$	3,300.00	\$3,300.00	connect to W main on Manchaca
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$	4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$	11,500.00	\$23,000.00	5 lb/ft
511S-A2		2	EA	Valves, Gate Type, 2" Diameter	\$	1,000.00	\$2,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$	1,200.00	\$0.00	
511S-A4	1.2	2	EA	Valves, Gate Type, 4" Diameter	\$	1,500.00	\$3,000.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$	1,900.00	\$3,800.00	for fire hydrants
511S-A8	2.4	3	EA	Valves, Gate Type, 8" Diameter	\$	2,300.00	\$6,900.00	1 each/250 ft
511S-B	2	2	EA	Fire Hydrant	\$	5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$	4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$	16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$	50.00	\$0.00	
591S-B		8	SY	Dry-Riprap	\$	140.00	\$1,120.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$	320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$	7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$	6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$	23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$	24.00	\$7,200.00	SD outfall
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$	23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	23.33333333	24	EA	Trees, 20 Gal	\$	600.00	\$14,400.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$	50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$	10,000.00	\$10,000.00	
609S-C		50	SY	Native Seeding for Erosion Control	\$	7.00	\$350.00	
610S-A		1,000	LF	Tree Protective Fencing Type A Chain Link Fence	\$	4.00	\$4,000.00	
610S-R		10	EA	Removal of Existing Trees	\$	570.00	\$5,700.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$	120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$	9.00	\$900.00	Triangular dike on pavement
639S		100	LF	Rock Berm	\$	39.00	\$3,900.00	
640S			SF	Mortared Rock Wall	\$	50.00	\$0.00	
641S		2	EA	Stabilized Construction Entrance	\$	1,700.00	\$3,400.00	
642S		3,000	LF	Silt Fence for Erosion Control	\$	4.00	\$12,000.00	
660S			CY	Bio-Filtration Media	\$	114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$	133,000.00	\$133,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$	20.00	\$0.00	

701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		10	EA	Traffic Signs	\$ 400.00	\$4,000.00	
827S		2	EA	Bicycle Lane Signage	\$ 400.00	\$800.00	
829S		300	LF	Bicycle Lane Markings	\$ 400.00	\$120,000.00	
871S-A4W		3,600	LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$10,800.00	
871S-A24W			LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W			EA	Reflectorized Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$0.00	
874S-A		870	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$10,440.00	
1301S-B	555.5555556	560	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$11,760.00	10' wide connect to surrounding streets
16550S	9	9	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$14,400.00	
	9	9	EA	Light Pole and LED Light	\$ 3,700.00	\$33,300.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		9	EA	Electrical Pull Box	\$ 1,200.00	\$10,800.00	
		900	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$110,700.00	100' per light pole

SUBTOTAL	\$2,784,251.00
CONTINGENCY	\$696,062.75
<b>TOTAL</b>	<b>\$3,480,313.75</b>

**Aquatic Master Plan**

Gillis

Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	365	100	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,000.00	at ADA parking and curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	1720	1750	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$35,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	358.0246914	300	CY	Excavation, Unclassified	\$ 52.00	\$15,600.00	5500sf + 540sf = 6040sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	805.5555556	680	SY	Sub-Grade Preparation	\$ 9.00	\$6,120.00	6040sf
203S-A8		680	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$10,404.00	
210S-A8	179.0123457	150	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$6,300.00	6040sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		60	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$1,020.00	540sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 36,000.00	\$36,000.00	\$3/sf x 12000sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 51,600.00	\$51,600.00	\$4.30/sf x 12000sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		100	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$1,800.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	5450	5,500	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$66,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1	3	3	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$5,400.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3		2	EA	Streetscape Bicycle Rack	\$ 800.00	\$1,600.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		3	EA	Parking Lot Bumper Curbs	\$	120.00	\$360.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Vargas
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Vargas
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Vargas
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking and curb ramp
509S-1		1,200	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,400.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350			LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AW-8-350		150	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$28,950.00	main service to Vargas
510-ASW18		280	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$38,080.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		470	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$58,750.00	WW service to main on Cargas
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Vargas
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Vargas
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6			EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$0.00	
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B			EA	Fire Hydrant	\$ 5,200.00	\$0.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1		EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$0.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	36.33333333	37	EA	Trees, 20 Gal	\$ 600.00	\$22,200.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		810	SY	Native Seeding for Erosion Control	\$ 7.00	\$5,670.00	
610S-A	1290	1,300	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$5,200.00	
610S-R		4	EA	Removal of Existing Trees	\$ 570.00	\$2,280.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 54,000.00	\$54,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		1	EA	Bicycle Lane Signage	\$ 400.00	\$400.00	
829S		900	LF	Bicycle Lane Markings	\$ 8.00	\$7,200.00	
871S-A4W	45	50	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$150.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		3	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$1,200.00	
874S-A		40	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$480.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		2	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$3,200.00	
		2	EA	Light Pole and LED Light	\$ 3,700.00	\$7,400.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		2	EA	Electrical Pull Box	\$ 1,200.00	\$2,400.00	
		200	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$24,600.00	100' per light pole
					SUBTOTAL	\$1,131,174.00	
					CONTINGENCY	\$282,793.50	
					<b>TOTAL</b>	<b>\$1,413,967.50</b>	

**Aquatic Master Plan**

**Givens**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		240	LF	Remove P.C. Concrete Curb	\$ 20.00	\$4,800.00	reconstruction at ADA parking and curb ramps
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	2575	2,600	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$52,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	1125.925926	1,120	CY	Excavation, Unclassified	\$ 52.00	\$58,240.00	22800sf + 1800sf = 24600sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	2533.333333	2,740	SY	Sub-Grade Preparation	\$ 9.00	\$24,660.00	24600sf
203S-A8		2,740	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$41,922.00	
210S-A8	562.962963	610	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$25,620.00	24600sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		200	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$3,400.00	1800sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 106,800.00	\$106,800.00	\$3/sf x 35600sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 153,080.00	\$153,080.00	\$4.30/sf x 35600sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		240	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$4,320.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	22725	22,800	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$273,600.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		8	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$14,400.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		5	EA	Parking Lot Bumper Curbs	\$	120.00	\$600.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on site
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$0.00	
506-MSW60		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$7,400.00	connect to SD system
506-MWW48			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$0.00	
506-MWW60		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$8,000.00	connect to WW main on site
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on site
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		4	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$22,400.00	improve drainage around pool site
508S-I10S		2	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$10,800.00	at ADA parking
509S-1		1,760	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$3,520.00	
510-AW2C		100	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$9,100.00	irrigation service
510-AW-4-350		100	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$14,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		380	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$73,340.00	main service to E. 12th
510-ASW18		700	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$95,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		200	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$25,000.00	WW service to main on site
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on site
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on E. 12th
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	151.5	30	EA	Trees, 20 Gal	\$ 600.00	\$18,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		2,600	SY	Native Seeding for Erosion Control	\$ 7.00	\$18,200.00	
610S-A		200	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$800.00	
610S-R		5	EA	Removal of Existing Trees	\$ 570.00	\$2,850.00	
SP628S-C		1	EA	Filter Curb Inlet Protection	\$ 120.00	\$120.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 90,000.00	\$90,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		160	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$96,000.00	160 CD/Block
SP803S-PS		70	CD	Portable Changeable Message Signs	\$ 120.00	\$8,400.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		6	EA	Bicycle Lane Signage	\$ 160.00	\$960.00	
829S	4415	4,500	LF	Bicycle Lane Markings	\$ 8.00	\$36,000.00	
871S-A4W	143	150	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$450.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		5	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$2,000.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S			EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$0.00	
			EA	Light Pole and LED Light	\$ 3,700.00	\$0.00	
			EA	Electrical Panel Enclosure	\$ 21,000.00	\$0.00	
			EA	Electrical Pull Box	\$ 1,200.00	\$0.00	
			LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$0.00	
					SUBTOTAL	\$1,873,722.00	
					CONTINGENCY	\$468,430.50	
					<b>TOTAL</b>	<b>\$2,342,152.50</b>	

**Aquatic Master Plan**

**Kennemer**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		100	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,000.00	for ADA parking reconstruction and curb ramps
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C		400	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$8,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	19.75308642	90	CY	Excavation, Unclassified	\$ 52.00	\$4,680.00	1300sf + 450sf = 1750sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	44.44444444	200	SY	Sub-Grade Preparation	\$ 9.00	\$1,800.00	1750sf
203S-A8		200	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$3,060.00	
210S-A8	9.87654321	44	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$1,848.00	1750sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		50	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$850.00	450sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 23,400.00	\$23,400.00	\$3/sf x 7800sfIC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 33,600.00	\$33,600.00	\$4.30/sf x 7800sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		100	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$1,800.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	1220	1,300	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$15,600.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		2	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$3,600.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		3	EA	Parking Lot Bumper Curbs	\$	120.00	\$360.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Peyton Gin
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Peyton Gin
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Peyton Gin
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,010	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,020.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		150	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$28,950.00	main service to Peyton Gin
510-ASW18		300	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$40,800.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		180	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$22,500.00	WW service to Peyton Gin
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Peyton Gin
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Peyton Gin
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	8.133333333	10	EA	Trees, 20 Gal	\$ 600.00	\$6,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		50	SY	Native Seeding for Erosion Control	\$ 7.00	\$350.00	
610S-A		150	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$600.00	
610S-R		10	EA	Removal of Existing Trees	\$ 570.00	\$5,700.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 48,000.00	\$48,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		1	EA	Bicycle Lane Signage	\$ 400.00	\$400.00	
829S		100	LF	Bicycle Lane Markings	\$ 8.00	\$800.00	
871S-A4W		50	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$150.00	
871S-A24W		20	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$320.00	
871S-D-SYMBOL-W		2	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$800.00	
874S-A		50	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$600.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		3	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$4,800.00	
		3	EA	Light Pole and LED Light	\$ 3,700.00	\$11,100.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		3	EA	Electrical Pull Box	\$ 1,200.00	\$3,600.00	
		300	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$36,900.00	100' per light pole

SUBTOTAL	\$996,818.00
CONTINGENCY	\$249,204.50
<b>TOTAL</b>	<b>\$1,246,022.50</b>

**Aquatic Master Plan**

Little Stacy

Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		160	LF	Remove P.C. Concrete Curb	\$ 20.00	\$3,200.00	at ADA parking and curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C		2000	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$40,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	370.3703704	300	CY	Excavation, Unclassified	\$ 52.00	\$15,600.00	5500sf + 500sf = 6000sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	833.3333333	670	SY	Sub-Grade Preparation	\$ 9.00	\$6,030.00	6000sf
203S-A8		670	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$10,251.00	
210S-A8	185.1851852	150	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$6,300.00	6000sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		60	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$1,020.00	500sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 17,400.00	\$17,400.00	\$3/sf x 5800sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 24,940.00	\$24,940.00	\$4.30/sf x 5800sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		160	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$2,880.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	5500	5,500	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$66,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		6	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$10,800.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3		1	EA	Streetscape Bicycle Rack	\$ 800.00	\$800.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on East Side
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on East Side
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	connection at WW main on East Side
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking and curb ramp
509S-1		1,160	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,320.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		400	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$77,200.00	main service to main on Alameda
510-ASW18		300	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$40,800.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		80	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$10,000.00	WW service to main on East Side
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on East Side
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Alameda
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	36.66666667	37	EA	Trees, 20 Gal	\$ 600.00	\$22,200.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		900	SY	Native Seeding for Erosion Control	\$ 7.00	\$6,300.00	
610S-A		1,500	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$6,000.00	
610S-R		15	EA	Removal of Existing Trees	\$ 570.00	\$8,550.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 60,000.00	\$60,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		1	EA	Bicycle Lane Signage	\$ 400.00	\$400.00	
829S		500	LF	Bicycle Lane Markings	\$ 8.00	\$4,000.00	
871S-A4W		200	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$600.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B		750	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$15,750.00	10' wide connect to surrounding streets
16550S		5	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$8,000.00	
		5	EA	Light Pole and LED Light	\$ 3,700.00	\$18,500.00	
		2	EA	Electrical Panel Enclosure	\$ 21,000.00	\$42,000.00	
		5	EA	Electrical Pull Box	\$ 1,200.00	\$6,000.00	2 different streets
		500	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$61,500.00	100' per light pole
					SUBTOTAL	\$1,256,571.00	
					CONTINGENCY	\$314,142.75	
					<b>TOTAL</b>	<b>\$1,570,713.75</b>	

**Aquatic Master Plan**

**Mable Davis**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	200	200	LF	Remove P.C. Concrete Curb	\$ 20.00	\$4,000.00	existing driveway one side and for parking lot expansion
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	500	500	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$10,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	122.6666667	660	CY	Excavation, Unclassified	\$ 52.00	\$34,320.00	2484sf + 356sf + 2500sf + 40'x200' = 13340sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	276	1,490	SY	Sub-Grade Preparation	\$ 9.00	\$13,410.00	13340sf
203S-A8	276	1,490	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$22,797.00	
210S-A8	61.33333333	330	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$13,860.00	13340sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2	276	1,210	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$20,570.00	2484sf + 356sf + 40'x200' = 10840sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 109,620.00	\$109,620.00	\$3/sf x 36540sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 157,130.00	\$157,130.00	\$4.30/sf x 36540sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A	102	200	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$3,600.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	2500	2,500	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$30,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		3	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$5,400.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	

433S-C	800	800	SF	Type II P.C. Concrete Driveway	\$ 11.00	\$8,800.00	new driveway within ROW
435S			LF	P.C. Concrete Steps	\$ 160.00	\$0.00	
439S	6	6	EA	Parking Lot Bumper Curbs	\$ 120.00	\$720.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$ 950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$ 243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$ 2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$ 2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$ 2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$ 6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$ 2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$ 2,300.00	\$2,300.00	connect to WW main in Parker
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$ 340.00	\$0.00	
506-MSW48	1		EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$ 5,700.00	\$0.00	
506-MSW60		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$ 7,400.00	\$7,400.00	connect to SD system
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$ 6,300.00	\$6,300.00	connect to WW main in Parker
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$ 8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$ 5,200.00	\$5,200.00	at connection to WW main in Parker
508S-H18			EA	Headwalls for 18" Pipe	\$ 3,000.00	\$0.00	
508S-H24			EA	Headwalls for 24" Pipe	\$ 3,200.00	\$0.00	
508S-H48		1	EA	Headwalls for 48" Pipe	\$ 6,400.00	\$6,400.00	SD outfall
508S-IG		6	EA	Inlet, Grate (Area Inlet)	\$ 5,600.00	\$33,600.00	improve drainage around pool site
508S-I10S	1	4	EA	Inlet, Standard 10 Foot	\$ 5,400.00	\$21,600.00	for parking expansion
509S-1		2,530	LF	Trench Excavation Safety Protective Systems (all depths)	\$ 2.00	\$5,060.00	
510-AW2C		200	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$ 91.00	\$18,200.00	irrigation service
510-AW-4-350	400	400	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$ 140.00	\$56,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$ 159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	450	450	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$ 193.00	\$86,850.00	main service
510-ASW18			LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$ 136.00	\$0.00	
510-ASW24		600	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$ 157.00	\$94,200.00	improve drainage around pool site
510-ASW30		400	LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$ 249.00	\$99,600.00	to SD outfall
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$ 311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$ 351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$ 368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$ 403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 114.00	\$0.00	

510-AWW8	400	400	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$50,000.00	Wastewater
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2	1	1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4	1	1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main in Parker
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main in Parker
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		2	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$2,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	1.6	2	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$3,000.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	1.8	2	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$4,600.00	1 each/250 ft
511S-B	2	2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		8	SY	Dry-Riprap	\$ 140.00	\$1,120.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	16.66666667	17	EA	Trees, 20 Gal	\$ 600.00	\$10,200.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C			SY	Native Seeding for Erosion Control	\$ 7.00	\$0.00	
610S-A		1,000	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$4,000.00	
610S-R		10	EA	Removal of Existing Trees	\$ 570.00	\$5,700.00	
SP628S-C		4	EA	Filter Curb Inlet Protection	\$ 120.00	\$480.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		80	LF	Rock Berm	\$ 39.00	\$3,120.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		3,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$12,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 95,000.00	\$95,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		10	EA	Traffic Signs	\$ 400.00	\$4,000.00	

827S		4	EA	Bicycle Lane Signage	\$ 400.00	\$1,600.00	
829S		300	LF	Bicycle Lane Markings	\$ 400.00	\$120,000.00	
871S-A4W		2,500	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$7,500.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W			EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$0.00	
874S-A		2,200	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$26,400.00	
1301S-B	1111.111111	1,150	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$24,150.00	10' wide connect to surrounding streets
16550S	9	9	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$14,400.00	
	9	9	EA	Light Pole and LED Light	\$ 3,700.00	\$33,300.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		9	EA	Electrical Pull Box	\$ 1,200.00	\$10,800.00	
		900	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$110,700.00	100' per light pole
SUBTOTAL						\$1,991,827.00	
CONTINGENCY						\$497,956.75	
<b>TOTAL</b>						<b>\$2,489,783.75</b>	

**Aquatic Master Plan**

**Martin**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		100	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,000.00	at curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	2925	3000	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$60,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A		860	CY	Excavation, Unclassified	\$ 52.00	\$44,720.00	17400sf x 16"
120S-A	859		CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1933.333333	1,950	SY	Sub-Grade Preparation	\$ 9.00	\$17,550.00	17400sf
203S-A8		1,950	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$29,835.00	
210S-A8	429.6296296	430	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$18,060.00	17400sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2			SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 71,700.00	\$71,700.00	\$3/sf x 23900sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 102,770.00	\$102,770.00	\$4.30/sf x 23900sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		100	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$1,800.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	17350	17,400	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$208,800.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		5	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$9,000.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1			LF	Pedestrian ADA Railing	\$ 102.00	\$0.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Chalmers
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Chalmers
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection at WW main on Chalmers
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,440	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,880.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		160	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$30,880.00	main service
510-ASW18	650	700	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$95,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		200	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$25,000.00	WW service to main on Chalmers
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Chalmers
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Nash Hernandez
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KV		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Couble Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	115.6666667	35	EA	Trees, 20 Gal	\$ 600.00	\$21,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		2,000	SY	Native Seeding for Erosion Control	\$ 7.00	\$14,000.00	
610S-A		100	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$400.00	
610S-R		10	EA	Removal of Existing Trees	\$ 570.00	\$5,700.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 75,000.00	\$75,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block

824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	
827S		3	EA	Bicycle Lane Signage	\$ 400.00	\$1,200.00	
829S		1,000	LF	Bicycle Lane Markings	\$ 8.00	\$8,000.00	
871S-A4W		100	LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mills in Thickness, White in Color	\$ 3.00	\$300.00	
871S-A24W			LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mills in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	Reflectorized Type 1 Pavement Marking, Symbol, 100 Mills in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A		100	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$1,200.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		2	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$3,200.00	
		2	EA	Light Pole and LED Light	\$ 3,700.00	\$7,400.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		2	EA	Electrical Pull Box	\$ 1,200.00	\$2,400.00	
		200	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$24,600.00	100' per light pole
					SUBTOTAL	\$1,561,725.00	
					CONTINGENCY	\$390,431.25	
					<b>TOTAL</b>	<b>\$1,952,156.25</b>	

**Aquatic Master Plan**

**Metz**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		150	LF	Remove P.C. Concrete Curb	\$ 20.00	\$3,000.00	at ADA parking and curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C		4600	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$92,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	558.0246914	590	CY	Excavation, Unclassified	\$ 52.00	\$30,680.00	11300sf + 600sf = 11900sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1255.555556	1,330	SY	Sub-Grade Preparation	\$ 9.00	\$11,970.00	11900sf
203S-A8		1,330	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$20,349.00	
210S-A8	279.0123457	300	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$12,600.00	11900sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		70	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$1,190.00	600sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 53,400.00	\$53,400.00	\$3/sf x 17800sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 76,540.00	\$76,540.00	\$4.30/sf x 17800sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		150	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$2,700.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	11300	11,300	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$135,600.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		6	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$10,800.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		2	EA	Parking Lot Bumper Curbs	\$	120.00	\$240.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Canterbury
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Canterbury
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Canterbury
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		880	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$1,760.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		150	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$28,950.00	main service
510-ASW18		200	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$27,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		150	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$18,750.00	WW service to main on Canterbury
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Canterbury
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Canterbury
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant (see Deatil No. 511S-17)	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	75.33333333	35	EA	Trees, 20 Gal	\$ 600.00	\$21,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		1,300	SY	Native Seeding for Erosion Control	\$ 7.00	\$9,100.00	
610S-A		1,000	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$4,000.00	
610S-R		10	EA	Removal of Existing Trees	\$ 570.00	\$5,700.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 66,000.00	\$66,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		3	EA	Bicycle Lane Signage	\$ 400.00	\$1,200.00	
829S		1,000	LF	Bicycle Lane Markings	\$ 8.00	\$8,000.00	
871S-A4W		150	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$450.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		2	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$800.00	
874S-A		150	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$1,800.00	
1301S-B		700	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$14,700.00	10' wide connect to surrounding streets
16550S		2	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$3,200.00	
		2	EA	Light Pole and LED Light	\$ 3,700.00	\$7,400.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		2	EA	Electrical Pull Box	\$ 1,200.00	\$2,400.00	
		200	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$24,600.00	100' per light pole
					SUBTOTAL	\$1,368,409.00	
					CONTINGENCY	\$342,102.25	
					<b>TOTAL</b>	<b>\$1,710,511.25</b>	

**Aquatic Master Plan**

**Montopolis**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	200	400	LF	Remove P.C. Concrete Curb	\$ 20.00	\$8,000.00	remove half of existing curb + curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	1150	1200	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$24,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	185.1851852	1,090	CY	Excavation, Unclassified	\$ 52.00	\$56,680.00	7452sd + 600sf + 14000sf = 22052sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	833.3333333	2,460	SY	Sub-Grade Preparation	\$ 9.00	\$22,140.00	22052sf
203S-A8		2,460	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$37,638.00	
210S-A8		550	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$23,100.00	22052sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		900	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$15,300.00	7452sf + 600sf = 8052sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 80,400.00	\$80,400.00	\$3/sf x 26800sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 115,240.00	\$115,240.00	\$4.30/sf x 26800sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		600	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$10,800.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5		14,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$168,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		8	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$14,400.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	

433S-C			SF	Type II P.C. Concrete Driveway	\$	11.00	\$0.00	
435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		2	EA	Parking Lot Bumper Curbs	\$	120.00	\$240.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Montopolis
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Montopolis
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Montopolis
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		2	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$10,800.00	parking expansion and ADA parking
509S-1		2,005	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$4,010.00	
510-AW2C		150	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$13,650.00	irrigation service
510-AW-4-350		100	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$14,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		375	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$72,375.00	main service
510-ASW18		700	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$95,200.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	

510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	
510-AWW8		400	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	125.00	\$50,000.00	WW service to main on Montopolis
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$	4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$	6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$	55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$	321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$	2,000.00	\$0.00	
510-BWV8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$	4,600.00	\$4,600.00	connect to WW main on Montopolis
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$	3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$	3,300.00	\$3,300.00	connect to W main on Montopolis
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$	4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$	11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$	1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$	1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$	1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$	1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$	2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$	5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$	4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$	16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$	50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$	140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$	320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$	7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$	6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$	23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$	24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$	23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	0	30	EA	Trees, 20 Gal	\$	600.00	\$18,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$	50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$	10,000.00	\$10,000.00	
609S-C			SY	Native Seeding for Erosion Control	\$	7.00	\$0.00	
610S-A		400	LF	Tree Protective Fencing Type A Chain Link Fence	\$	4.00	\$1,600.00	
610S-R		3	EA	Removal of Existing Trees	\$	570.00	\$1,710.00	
SP628S-C		3	EA	Filter Curb Inlet Protection	\$	120.00	\$360.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$	9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$	39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$	50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$	1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$	4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$	114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$	83,000.00	\$83,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$	20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$	1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$	2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$	700.00	\$700.00	
803S-SF			LF	Safety Fence	\$	3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$	400.00	\$0.00	

SP803S-CD		160	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$96,000.00	160 CD/Block
SP803S-PS		70	CD	Portable Changeable Message Signs	\$ 120.00	\$8,400.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	
827S		1	EA	Bicycle Lane Signage	\$ 400.00	\$400.00	
829S		300	LF	Bicycle Lane Markings	\$ 8.00	\$2,400.00	
871S-A4W		1,230	LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$3,690.00	
871S-A24W			LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		2	EA	Reflectorized Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$800.00	
874S-A		800	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$9,600.00	
1301S-B		500	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$10,500.00	10' wide connect to surrounding streets
16550S		2	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$3,200.00	
		2	EA	Light Pole and LED Light	\$ 3,700.00	\$7,400.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		2	EA	Electrical Pull Box	\$ 1,200.00	\$2,400.00	
		200	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$24,600.00	100' per light pole
					SUBTOTAL	\$1,727,573.00	
					CONTINGENCY	\$431,893.25	
					<b>TOTAL</b>	<b>\$2,159,466.25</b>	

**Aquatic Master Plan**

**Murchison**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity	Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A			60	LF	Remove P.C. Concrete Curb	\$ 20.00	\$1,200.00	curb ramp reconstruction
104S-B				SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	550		550	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$11,000.00	
SP104S				SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB				EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
				CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
				LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
				LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
				EA	Demolition, Light Pole	\$ 600.00	\$0.00	
				LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
				CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
				CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
				TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	39.50617284		40	CY	Excavation, Unclassified	\$ 52.00	\$2,080.00	700sf x 16"
120S-A				CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A				CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T				CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A				CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	88.88888889		80	SY	Sub-Grade Preparation	\$ 9.00	\$720.00	700sf
203S-A8			80	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$1,224.00	
210S-A8	19.75308642		20	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$840.00	700sf x 8"
340S-B-C3				SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2				SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5				SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A				SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY				CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D			1	EA	Concrete Structure, Storm Water Detention	\$ 21,600.00	\$21,600.00	\$3/sf x 7200sf IC
403S-EA-WQ			1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 30,960.00	\$30,960.00	\$4.30/sf x 7200sf IC
414S-C				SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A			60	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$1,080.00	
430S-E				LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	700		700	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$8,400.00	
432S-6				SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1			3	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$5,400.00	
432S-SAC-1				EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1				EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2				EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3				EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4				EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C				EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1			50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K				EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C				SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		2	EA	Parking Lot Bumper Curbs	\$	120.00	\$240.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Hart
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Hart
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Hart
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,090	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,180.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		110	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$21,230.00	main service
510-ASW18	490	500	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$68,000.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		100	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$12,500.00	WW service to main on Hart
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recove Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Hart
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Hart
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	4.666666667	5	EA	Trees, 20 Gal	\$ 600.00	\$3,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		100	SY	Native Seeding for Erosion Control	\$ 7.00	\$700.00	
610S-A		250	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$1,000.00	
610S-R		5	EA	Removal of Existing Trees	\$ 570.00	\$2,850.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 47,000.00	\$47,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S			EA	Bicycle Lane Signage	\$ 400.00	\$0.00	
829S			LF	Bicycle Lane Markings	\$ 8.00	\$0.00	
871S-A4W	720	870	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$2,610.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		2	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$800.00	
874S-A		870	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$10,440.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		3	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$4,800.00	
		3	EA	Light Pole and LED Light	\$ 3,700.00	\$11,100.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		3	EA	Electrical Pull Box	\$ 1,200.00	\$3,600.00	
		300	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$36,900.00	100' per light pole
SUBTOTAL						\$983,784.00	
CONTINGENCY						\$245,946.00	
<b>TOTAL</b>						<b>\$1,229,730.00</b>	

**Aquatic Master Plan**

**Northwest**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity	Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A				LF	Remove P.C. Concrete Curb	\$ 20.00	\$0.00	
104S-B				SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C				SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$0.00	
SP104S				SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB				EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
				CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
				LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
				LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
				EA	Demolition, Light Pole	\$ 600.00	\$0.00	
				LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
				CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
				CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
				TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A			150	CY	Excavation, Unclassified	\$ 52.00	\$7,800.00	3000sf x 16"
120S-A				CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A				CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T				CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A				CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S			340	SY	Sub-Grade Preparation	\$ 9.00	\$3,060.00	3000sf
203S-A8			340	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$5,202.00	
210S-A8			80	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$3,360.00	3000sf x 8"
340S-B-C3				SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2				SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5				SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A				SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY				CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D			1	EA	Concrete Structure, Storm Water Detention	\$ 73,500.00	\$73,500.00	\$3/sf x 24500sf IC
403S-EA-WQ			1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 105,350.00	\$105,350.00	\$4.30/sf x 24500sf IC
414S-C				SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A				LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$0.00	
430S-E				LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	2500		3,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$36,000.00	
432S-6				SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1	4		4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1				EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1				EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2				EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3				EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4				EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C				EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1	30		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	Assumption
SP432S-K				EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C				SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S	5	5	EA	Parking Lot Bumper Curbs	\$	120.00	\$600.00	for accessible parking spaces
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW	1	1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Ardath
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48	1	1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Ardath
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Ardath
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24			EA	Headwalls for 24" Pipe	\$	3,200.00	\$0.00	
508S-H48		1	EA	Headwalls for 48" Pipe	\$	6,400.00	\$6,400.00	SD outfall
508S-IG		6	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$33,600.00	improve drainage around pool site
508S-I10S		4	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$21,600.00	around parking lot
509S-1		3,680	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$7,360.00	
510-AW2C		100	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$9,100.00	irrigation service
510-AW-4-350	250	300	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$42,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	500	800	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$154,400.00	main service
510-ASW18			LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$0.00	
510-ASW24		1,600	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$251,200.00	improve drainage around pool site
510-ASW30		300	LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$74,700.00	to SD outfall
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8	350	500	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$62,500.00	WW service to main on Ardath
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Ardath
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Ardath
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$36,800.00	5 lb/ft
511S-A2		2	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$2,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	1	2	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$3,000.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	2	3	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$6,900.00	1 each/250 ft
511S-B	2	2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	for fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		8	SY	Dry-Riprap	\$ 140.00	\$1,120.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	16.66666667	20	EA	Trees, 20 Gal	\$ 600.00	\$12,000.00	30ft apart along sidewalk / there are quite a few of existing trees
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		50	SY	Native Seeding for Erosion Control	\$ 7.00	\$350.00	
610S-A		1,000	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$4,000.00	
610S-R		2	EA	Removal of Existing Trees	\$ 570.00	\$1,140.00	
SP628S-C		4	EA	Filter Curb Inlet Protection	\$ 120.00	\$480.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		200	LF	Rock Berm	\$ 39.00	\$7,800.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		2	EA	Stabilized Construction Entrance	\$ 1,700.00	\$3,400.00	
642S		3,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$12,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 100,000.00	\$100,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		160	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$96,000.00	160 CD/Block
SP803S-PS		70	CD	Portable Changeable Message Signs	\$ 120.00	\$8,400.00	70 CD/Block

824S		10	EA	Traffic Signs	\$ 400.00	\$4,000.00	
827S		4	EA	Bicycle Lane Signage	\$ 400.00	\$1,600.00	
829S		800	LF	Bicycle Lane Markings	\$ 400.00	\$320,000.00	
871S-A4W	3360	4,500	LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mills in Thickness, White in Color	\$ 3.00	\$13,500.00	restriping parking
871S-A24W			LF	Reflectorized Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mills in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W			EA	Reflectorized Type 1 Pavement Marking, Symbol, 100 Mills in Thickness, White in Color	\$ 400.00	\$0.00	
874S-A		4,500	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$54,000.00	
1301S-B	277.7777778	300	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$6,300.00	10' wide from trail to building entrance
16550S			EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$0.00	
			EA	Light Pole and LED Light	\$ 3,700.00	\$0.00	
			EA	Electrical Panel Enclosure	\$ 21,000.00	\$0.00	
			EA	Electrical Pull Box	\$ 1,200.00	\$0.00	
			LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$0.00	
					SUBTOTAL	\$2,092,142.00	
					CONTINGENCY	\$523,035.50	
					<b>TOTAL</b>	<b>\$2,615,177.50</b>	

**Aquatic Master Plan**

**Parque Zaragoza**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		200	LF	Remove P.C. Concrete Curb	\$ 20.00	\$4,000.00	ADA parking and curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	3250	3300	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$66,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	740.7407407	750	CY	Excavation, Unclassified	\$ 52.00	\$39,000.00	850sf + 14000sf = 14850sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1666.666667	1,700	SY	Sub-Grade Preparation	\$ 9.00	\$15,300.00	14850sf
203S-A8		1,700	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$26,010.00	
210S-A8	370	370	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$15,540.00	14850sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		100	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$1,700.00	850 sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 61,500.00	\$61,500.00	\$3/sf x 20500sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 88,150.00	\$88,150.00	\$4.30/sf x 20500sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		200	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$3,600.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	13950	14,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$168,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		3	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$5,400.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3		1	EA	Streetscape Bicycle Rack	\$ 800.00	\$800.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		1	EA	Parking Lot Bumper Curbs	\$	120.00	\$120.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Francisco
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Francisco
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Francisco
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,380	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,760.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		100	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$14,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		300	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$57,900.00	main service
510-ASW18		300	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$40,800.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8	350	350	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$43,750.00	WW service to main on Francisco
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Francisco
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Webberville
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant (see Deatil No. 511S-17)	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	93	35	EA	Trees, 20 Gal	\$ 600.00	\$21,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		1,700	SY	Native Seeding for Erosion Control	\$ 7.00	\$11,900.00	
610S-A		500	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$2,000.00	
610S-R		2	EA	Removal of Existing Trees	\$ 570.00	\$1,140.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S	1410	2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 71,000.00	\$71,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		1	EA	Bicycle Lane Signage	\$ 400.00	\$400.00	
829S		200	LF	Bicycle Lane Markings	\$ 8.00	\$1,600.00	
871S-A4W	96	100	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$300.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A		100	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$1,200.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		2	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$3,200.00	
		2	EA	Light Pole and LED Light	\$ 3,700.00	\$7,400.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		2	EA	Electrical Pull Box	\$ 1,200.00	\$2,400.00	
		200	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$24,600.00	100' per light pole
					SUBTOTAL	\$1,477,700.00	
					CONTINGENCY	\$369,425.00	
					<b>TOTAL</b>	<b>\$1,847,125.00</b>	

**Aquatic Master Plan**

**Patterson**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		120	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,400.00	curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	2700	2700	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$54,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	1120.987654	990	CY	Excavation, Unclassified	\$ 52.00	\$51,480.00	20000sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	2522.222222	2,230	SY	Sub-Grade Preparation	\$ 9.00	\$20,070.00	20000sf
203S-A8		2,230	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$34,119.00	
210S-A8		500	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$21,000.00	20000sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2			SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 79,500.00	\$79,500.00	\$3/sf x 26500sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 113,950.00	\$113,950.00	\$4.30/sf x 26500sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A			LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$0.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	19850	20,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$240,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		6	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$10,800.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3		1	EA	Streetscape Bicycle Rack	\$ 800.00	\$800.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		1	EA	Parking Lot Bumper Curbs	\$	120.00	\$120.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Wilshire
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Wilshire
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Wilshire
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		2,230	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$4,460.00	
510-AW2C		150	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$13,650.00	irrigation service
510-AW-4-350	200	200	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$28,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	650	700	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$135,100.00	main service
510-ASW18		500	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$68,000.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		400	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$50,000.00	WW service to main on Wilshire
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	Irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Wilshire
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Schieffer
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0.8	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	2.6	3	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$6,900.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Couple Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	132.3333333	35	EA	Trees, 20 Gal	\$ 600.00	\$21,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		2,700	SY	Native Seeding for Erosion Control	\$ 7.00	\$18,900.00	
610S-A		1,000	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$4,000.00	
610S-R		2	EA	Removal of Existing Trees	\$ 570.00	\$1,140.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		1,500	LF	Silt Fence for Erosion Control	\$ 4.00	\$6,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 85,000.00	\$85,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		3	EA	Bicycle Lane Signage	\$ 400.00	\$1,200.00	
829S		1,500	LF	Bicycle Lane Markings	\$ 8.00	\$12,000.00	
871S-A4W	414	420	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$1,260.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A		50	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$600.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		1	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$1,600.00	
		1	EA	Light Pole and LED Light	\$ 3,700.00	\$3,700.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		1	EA	Electrical Pull Box	\$ 1,200.00	\$1,200.00	
		100	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$12,300.00	100' per light pole
					SUBTOTAL	\$1,769,729.00	
					CONTINGENCY	\$442,432.25	
					<b>TOTAL</b>	<b>\$2,212,161.25</b>	

**Aquatic Master Plan**

**Ramsey**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		100	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,000.00	curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	5625	5650	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$113,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	641.9753086	650	CY	Excavation, Unclassified	\$ 52.00	\$33,800.00	13000sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1444.444444	1,500	SY	Sub-Grade Preparation	\$ 9.00	\$13,500.00	13000sf
203S-A8		1,500	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$22,950.00	
210S-A8	321	330	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$13,860.00	13000sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2			SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 58,500.00	\$58,500.00	\$3/sf x 19500sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 83,850.00	\$83,850.00	\$4.30/sf x 19500sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		100	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$1,800.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	12825	13,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$156,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		5	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$9,000.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Rosedale
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Rosedale
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Rosedale
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,480	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,960.00	
510-AW2C		50	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$4,550.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		300	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$57,900.00	main service
510-ASW18		400	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$54,400.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		400	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$50,000.00	WW service to main on Rosedale
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Rosedale
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W mai on 42nd
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3		2	EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$2,400.00	for fire hydrants
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	85.5	35	EA	Trees, 20 Gal	\$ 600.00	\$21,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		400	SY	Native Seeding for Erosion Control	\$ 7.00	\$2,800.00	
610S-A			LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$0.00	
610S-R		10	EA	Removal of Existing Trees	\$ 570.00	\$5,700.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 71,000.00	\$71,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S			EA	Bicycle Lane Signage	\$ 400.00	\$0.00	
829S			LF	Bicycle Lane Markings	\$ 8.00	\$0.00	
871S-A4W		100	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$300.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		1	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$1,600.00	
		1	EA	Light Pole and LED Light	\$ 3,700.00	\$3,700.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		1	EA	Electrical Pull Box	\$ 1,200.00	\$1,200.00	
		100	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$12,300.00	100' per light pole
					SUBTOTAL	\$1,482,850.00	
					COTINGENCY	\$370,712.50	
					<b>TOTAL</b>	<b>\$1,853,562.50</b>	

**Aquatic Master Plan**

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Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	400	400	LF	Remove P.C. Concrete Curb	\$ 20.00	\$8,000.00	ADA parking and curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	6150	6200	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$124,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	1283.950617	1,310	CY	Excavation, Unclassified	\$ 52.00	\$68,120.00	26000sf + 400sf = 26400sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	2888.888889	2,940	SY	Sub-Grade Preparation	\$ 9.00	\$26,460.00	26400sf
203S-A8		2,940	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$44,982.00	
210S-A8	641.9753086	660	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$27,720.00	26400sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		50	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$850.00	400sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 97,500.00	\$97,500.00	\$3/sf x 32500sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 139,750.00	\$139,750.00	\$4.30/sf x 32500sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		400	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$7,200.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	26000	26,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$312,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1	3	4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Pecos
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Pecos
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Pecos
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,580	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$3,160.00	
510-AW2C		80	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$7,280.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		400	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$77,200.00	main service
510-ASW18	300	400	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$54,400.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		370	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$46,250.00	WW service to main on Pecos
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Pecos
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Pecos
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant (see Deatil No. 511S-17)	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	173.3333333	35	EA	Trees, 20 Gal	\$ 600.00	\$21,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		2,600	SY	Native Seeding for Erosion Control	\$ 7.00	\$18,200.00	
610S-A		2,000	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$8,000.00	
610S-R		4	EA	Removal of Existing Trees	\$ 570.00	\$2,280.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,500	LF	Silt Fence for Erosion Control	\$ 4.00	\$10,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 91,000.00	\$91,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		3	EA	Bicycle Lane Signage	\$ 400.00	\$1,200.00	
829S		2,600	LF	Bicycle Lane Markings	\$ 8.00	\$20,800.00	
871S-A4W		200	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$600.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A		200	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$2,400.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		1	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$1,600.00	
		1	EA	Light Pole and LED Light	\$ 3,700.00	\$3,700.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		1	EA	Electrical Pull Box	\$ 1,200.00	\$1,200.00	
		100	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$12,300.00	100' per light pole
SUBTOTAL						\$1,909,632.00	
CONTINGENCY						\$477,408.00	
<b>TOTAL</b>						<b>\$2,387,040.00</b>	

**Aquatic Master Plan**

**Rosewood**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A	190	200	LF	Remove P.C. Concrete Curb	\$ 20.00	\$4,000.00	ADA parking and curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	2100	2100	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$42,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	493.8271605	380	CY	Excavation, Unclassified	\$ 52.00	\$19,760.00	7500sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1111.111111	840	SY	Sub-Grade Preparation	\$ 9.00	\$7,560.00	7500sf
203S-A8		840	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$12,852.00	
210S-A8	246.9135802	190	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$7,980.00	7500sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2			SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 22,500.00	\$22,500.00	\$3/sf x 7500sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 32,250.00	\$32,250.00	\$4.30/sf x 7500sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		200	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$3,600.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	7420	7,500	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$90,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3		2	EA	Streetscape Bicycle Rack	\$ 800.00	\$1,600.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		3	EA	Parking Lot Bumper Curbs	\$	120.00	\$360.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Chestnut
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Chestnut
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Chestnut
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,940	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$3,880.00	
510-AW2C		40	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$3,640.00	irrigation service
510-AW-4-350		50	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$7,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		340	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$65,620.00	main service
510-ASW18		800	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$108,800.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		430	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$53,750.00	WW service to main on Chestnut
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Chestnut
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Rosewood
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	49.46666667	50	EA	Trees, 20 Gal	\$ 600.00	\$30,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		1,200	SY	Native Seeding for Erosion Control	\$ 7.00	\$8,400.00	
610S-A		250	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$1,000.00	
610S-R		10	EA	Removal of Existing Trees	\$ 570.00	\$5,700.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 67,000.00	\$67,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		2	EA	Bicycle Lane Signage	\$ 400.00	\$800.00	
829S		200	LF	Bicycle Lane Markings	\$ 8.00	\$1,600.00	
871S-A4W		80	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$240.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		3	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$1,200.00	
874S-A		80	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$960.00	
1301S-B	3000	3,000	SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$63,000.00	10' wide connect to surrounding streets
16550S		3	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$4,800.00	
		3	EA	Light Pole and LED Light	\$ 3,700.00	\$11,100.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		3	EA	Electrical Pull Box	\$ 1,200.00	\$3,600.00	
		300	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$36,900.00	100' per light pole
					SUBTOTAL	\$1,400,932.00	
					CONTINGENCY	\$350,233.00	
					<b>TOTAL</b>	<b>\$1,751,165.00</b>	

**Aquatic Master Plan**

**Springwood**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		100	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,000.00	parking expansion + curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C		350	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$7,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	633.0864198	820	CY	Excavation, Unclassified	\$ 52.00	\$42,640.00	12420sf + 4000sf = 16420sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1424.444444	1,830	SY	Sub-Grade Preparation	\$ 9.00	\$16,470.00	16420sf
203S-A8		1,830	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$27,999.00	
210S-A8	316.5432099	410	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$17,220.00	16420sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		1,380	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$23,460.00	12420sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 12,000.00	\$12,000.00	\$3/sf x 4000sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 17,200.00	\$17,200.00	\$4.20/sf x 4000sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		550	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$9,900.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	3900	4,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$48,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		150	LF	Pedestrian ADA Railing	\$ 102.00	\$15,300.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		2	EA	Parking Lot Bumper Curbs	\$	120.00	\$240.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Lyndhurst
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on Lyndhurst
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Lyndhurst
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		2	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$10,800.00	at ADA parking and parking expansion
509S-1		980	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$1,960.00	
510-AW2C		100	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$9,100.00	irrigation service
510-AW-4-350		100	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$14,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		100	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$19,300.00	main service
510-ASW18		300	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$40,800.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		100	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$12,500.00	WW service to main on Lyndhurst
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on Lyndhurst
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on Lyndhurst
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		3	TON	Ductile Iron Fittings	\$ 11,500.00	\$34,500.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	26	26	EA	Trees, 20 Gal	\$ 600.00	\$15,600.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C	1424.444444	1,500	SY	Native Seeding for Erosion Control	\$ 7.00	\$10,500.00	
610S-A		300	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$1,200.00	
610S-R		1	EA	Removal of Existing Trees	\$ 570.00	\$570.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		150	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$1,350.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 59,000.00	\$59,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		160	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$96,000.00	160 CD/Block
SP803S-PS		70	CD	Portable Changeable Message Signs	\$ 120.00	\$8,400.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		2	EA	Bicycle Lane Signage	\$ 400.00	\$800.00	
829S	430	450	LF	Bicycle Lane Markings	\$ 8.00	\$3,600.00	
871S-A4W		230	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$690.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		2	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$800.00	
874S-A		510	LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$6,120.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		4	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$6,400.00	
		4	EA	Light Pole and LED Light	\$ 3,700.00	\$14,800.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		4	EA	Electrical Pull Box	\$ 1,200.00	\$4,800.00	
		400	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$49,200.00	100' per light pole
					SUBTOTAL	\$1,241,599.00	
					CONTINGENCY	\$310,399.75	
					<b>TOTAL</b>	<b>\$1,551,998.75</b>	

**Aquatic Master Plan**

**Walnut Creek**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		220	LF	Remove P.C. Concrete Curb	\$ 20.00	\$4,400.00	curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	2500	2,500	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$50,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	740.7407407	300	CY	Excavation, Unclassified	\$ 52.00	\$15,600.00	6000sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	1666.666667	670	SY	Sub-Grade Preparation	\$ 9.00	\$6,030.00	6000sf
203S-A8		670	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$10,251.00	
210S-A8	370.3703704	150	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$6,300.00	6000sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2			SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$0.00	
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 56,400.00	\$56,400.00	\$3/sf x 18800sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 80,840.00	\$80,840.00	\$4.30/sf x 18800sd IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		220	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$3,960.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	6000	6,000	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$72,000.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		11	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$19,800.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		100	LF	Pedestrian ADA Railing	\$ 102.00	\$10,200.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S			EA	Parking Lot Bumper Curbs	\$	120.00	\$0.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on Wells Branch
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$0.00	
506-MWW60		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$8,000.00	connect to WW main on Wells Branch
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on Wells Branch
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		3,220	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$6,440.00	
510-AW2C	120	120	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$10,920.00	irrigation service
510-AW-4-350	210	210	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$29,400.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350	1750	1,750	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$337,750.00	main service
510-ASW18	530	600	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$81,600.00	improve drainage around pool site
510-ASW24		300	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$47,100.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	

510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	
510-AWW8	160	160	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	125.00	\$20,000.00	WW service to main on Wells Branch
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$	4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$	6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$	55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$	321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$	2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$	4,600.00	\$4,600.00	connect to WW main on Wells Branch
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$	3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$	3,300.00	\$3,300.00	connect to W main on Lamar
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$	4,600.00	\$0.00	
510-KW	4.9	5	TON	Ductile Iron Fittings	\$	11,500.00	\$57,500.00	5 lb/ft
511S-A2	0.48	2	EA	Valves, Gate Type, 2" Diameter	\$	1,000.00	\$2,000.00	1 each/250 ft
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$	1,200.00	\$0.00	
511S-A4	0.84	2	EA	Valves, Gate Type, 4" Diameter	\$	1,500.00	\$3,000.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$	1,900.00	\$3,800.00	for fire hydrants
511S-A8	7	7	EA	Valves, Gate Type, 8" Diameter	\$	2,300.00	\$16,100.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant	\$	5,200.00	\$10,400.00	
511S-C2	1	1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$	4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$	16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$	50.00	\$0.00	
591S-B		8	SY	Dry-Riprap	\$	140.00	\$1,120.00	
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$	320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$	7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$	6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$	23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$	24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$	23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	40	40	EA	Trees, 20 Gal	\$	600.00	\$24,000.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$	50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$	10,000.00	\$10,000.00	
609S-C		2,000	SY	Native Seeding for Erosion Control	\$	7.00	\$14,000.00	
610S-A		1,500	LF	Tree Protective Fencing Type A Chain Link Fence	\$	4.00	\$6,000.00	
610S-R		10	EA	Removal of Existing Trees	\$	570.00	\$5,700.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$	120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$	9.00	\$900.00	Triangular dike on pavement
639S		80	LF	Rock Berm	\$	39.00	\$3,120.00	
640S			SF	Mortared Rock Wall	\$	50.00	\$0.00	
641S			EA	Stabilized Construction Entrance	\$	1,700.00	\$0.00	
642S		2,700	LF	Silt Fence for Erosion Control	\$	4.00	\$10,800.00	
660S			CY	Bio-Filtration Media	\$	114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$	88,000.00	\$88,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$	20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$	1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$	2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$	700.00	\$700.00	
803S-SF			LF	Safety Fence	\$	3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$	400.00	\$0.00	



**Aquatic Master Plan**

**West Austin**

**Doucet + Chan, a Division of Doucet & Associates, Inc.  
Texas Registration No. 3937**

Item No.	Quantity Calculation	Quantity	Unit	Item Description	Unit Price	Amount	Notes
104S-A		120	LF	Remove P.C. Concrete Curb	\$ 20.00	\$2,400.00	ADA space + curb ramp reconstruction
104S-B			SF	Remove P.C. Concrete Slab	\$ 20.00	\$0.00	
104S-C	975	1000	SF	Remove P.C. Concrete Sidewalks & Driveways	\$ 20.00	\$20,000.00	
SP104S			SF	Demolition, Buildings	\$ 10.00	\$0.00	
SP104S-UB			EA	Demolition, Utility Boxes	\$ 2,700.00	\$0.00	
			CF	Demolition, Masonry Walls, Stone with Mortar	\$ 8.00	\$0.00	12" thick
			LF	Demolition, Water/Wastewater Pipe, 6 Inch to 12 Inch Dia.	\$ 29.00	\$0.00	
			LF	Demolition, Electric Conduits	\$ 7.00	\$0.00	
			EA	Demolition, Light Pole	\$ 600.00	\$0.00	
			LF	Demolition, Chain Link Fence	\$ 7.00	\$0.00	
			CY	Demolition Disposal, Loading and 5 Mile Haul to Dump (Non-Hazardous)	\$ 22.00	\$0.00	
			CY-Mi	Demolition, Disposal Haul, Per Mile over 5 Miles	\$ 2.00	\$0.00	
			TON	Demolition, Dump Charge	\$ 110.00	\$0.00	
111S-A	311.1111111	350	CY	Excavation, Unclassified	\$ 52.00	\$18,200.00	6300sf + 600sf = 6900sf x 16"
120S-A			CY	Channel Excavation	\$ 90.00	\$0.00	
130S-A			CY	Class A (Select Borrow)	\$ 59.00	\$0.00	
130S-T			CY	Class C (Topsoil)	\$ 44.00	\$0.00	
132S-A			CY	Embankment (Fill)	\$ 29.00	\$0.00	
201S	700	770	SY	Sub-Grade Preparation	\$ 9.00	\$6,930.00	6900sf
203S-A8		770	SY	Lime Treated Subgrade, 8 Inch Thickness	\$ 15.30	\$11,781.00	
210S-A8	155.5555556	180	CY	Flexible Base, 8 Inch Thickness	\$ 42.00	\$7,560.00	6900sf x 8"
340S-B-C3			SY	Hot Mix Asphaltic Concrete Pavement, 3 Inches, Type C	\$ 22.00	\$0.00	
340S-B-C2		70	SY	Hot Mix Asphaltic Concrete Pavement, 2 Inches, Type C	\$ 17.00	\$1,190.00	600sf
340S-B-C1.5			SY	Hot Mix Asphaltic Concrete Pavement, 1-1/2 Inches, Type C	\$ 15.00	\$0.00	
360S-A			SY	7 Inch Concrete Pavement	\$ 108.00	\$0.00	
403S-CY			CY	Concrete Structure, _____	\$ 720.00	\$0.00	
403S-EA-D		1	EA	Concrete Structure, Storm Water Detention	\$ 21,900.00	\$21,900.00	\$3/sf x 7300sf IC
403S-EA-WQ		1	EA	Concrete Structure, Storm Water Quality Treatment	\$ 31,390.00	\$31,390.00	\$4.30/sf x 7300sf IC
414S-C			SF	Cast in Place Portland Cement Concrete Retaining Wall, Including Reinforcement	\$ 61.00	\$0.00	
430S-A		120	LF	P.C. Concrete Curb and Gutter (Excavation)	\$ 18.00	\$2,160.00	
430S-E			LF	P.C. Concrete Laydown Curb (Excavation)	\$ 22.00	\$0.00	
432S-5	6300	6,300	SF	New P.C. Concrete Sidewalks, 5 Inch thickness	\$ 12.00	\$75,600.00	
432S-6			SF	New P.C. Concrete Sidewalks, 6 Inch thickness	\$ 14.00	\$0.00	
432S-RP-1		4	EA	P.C. Sidewalk Curb Ramp with Pavers (Type I)	\$ 1,800.00	\$7,200.00	
432S-SAC-1			EA	Streetscape Bench (5ft with Back)	\$ 3,800.00	\$0.00	
432S-SAC-1			EA	Streetscape Bench (5ft without Back)	\$ 2,300.00	\$0.00	
432S-SAC-2			EA	Streetscape Chair (2 ft)	\$ 2,300.00	\$0.00	
432S-SAC-3			EA	Streetscape Bicycle Rack	\$ 800.00	\$0.00	
432S-SAC-4			EA	Streetscape Trash Receptacle	\$ 2,900.00	\$0.00	
432S-SAC-7C			EA	Streetscape Tree Well & Grate	\$ 6,600.00	\$0.00	
432S-PRC-1		50	LF	Pedestrian ADA Railing	\$ 102.00	\$5,100.00	
SP432S-K			EA	Art Kiosks	\$ 25,000.00	\$0.00	
433S-C			SF	Type II P.C. Concrete Driveway	\$ 11.00	\$0.00	

435S			LF	P.C. Concrete Steps	\$	160.00	\$0.00	
439S		1	EA	Parking Lot Bumper Curbs	\$	120.00	\$120.00	
504S-3W			EA	Adjusting Water Valve Boxes to Grade	\$	950.00	\$0.00	
505S-B20			LF	Encasement Pipe, Split 20 Inch Dia., Type Steel, 0.375 Inch Minimum Thickness	\$	243.00	\$0.00	
506-ABSW			EA	Abandonment of Existing Manholes, Storm Water	\$	2,200.00	\$0.00	
506-ABWW			EA	Abandonment of Existing Manholes, Wastewater	\$	2,200.00	\$0.00	
506-ABE			EA	Abandonment of Existing Manholes, Electrical and Telecommunications	\$	2,200.00	\$0.00	
506-BSW4x4			EA	Box Manhole, 4ft x 4ft	\$	6,600.00	\$0.00	
506-CNSW		1	EA	Connection of Storm Water Pipe to Existing System	\$	2,300.00	\$2,300.00	
506-CNWW		1	EA	Connection of Wastewater Pipe to Existing System	\$	2,300.00	\$2,300.00	connect to WW main on W. 10th
506-EDMSSW48			LVF	Extra Depth Special Storm Water Manhole, 48 In. Dia.	\$	340.00	\$0.00	
506-MSW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 48 In. Dia.	\$	5,700.00	\$5,700.00	connect to SD system
506-MSW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 60 In. Dia.	\$	7,400.00	\$0.00	
506-MWW48		1	EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 4 Ft. Dia.	\$	6,300.00	\$6,300.00	connect to WW main on W. 10th
506-MWW60			EA	Standard Pre-Cast Manhole w/ Pre-Cast Base, 5 Ft. Dia.	\$	8,000.00	\$0.00	
SP506-M		1	EA	By-Pass Pumping at Each Connection to Existing Manhole	\$	5,200.00	\$5,200.00	at connection to WW main on W. 10th
508S-H18			EA	Headwalls for 18" Pipe	\$	3,000.00	\$0.00	
508S-H24		1	EA	Headwalls for 24" Pipe	\$	3,200.00	\$3,200.00	SD outfall
508S-H48			EA	Headwalls for 48" Pipe	\$	6,400.00	\$0.00	
508S-IG		3	EA	Inlet, Grate (Area Inlet)	\$	5,600.00	\$16,800.00	improve drainage around pool site
508S-I10S		1	EA	Inlet, Standard 10 Foot	\$	5,400.00	\$5,400.00	at ADA parking
509S-1		1,180	LF	Trench Excavation Safety Protective Systems (all depths)	\$	2.00	\$2,360.00	
510-AW2C		100	LF	Pipe, 2" Dia. Copper (all depths), including Excavation and Backfill	\$	91.00	\$9,100.00	irrigation service
510-AW-4-350		100	LF	Pipe, 4" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	140.00	\$14,000.00	domestic service
510-AW-6-350		80	LF	Pipe, 6" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	159.00	\$12,720.00	fire hydrant leads
510-AW-8-350		200	LF	Pipe, 8" Dia. Class 350 Ductile Iron (all depths), including Excavation and Backfill	\$	193.00	\$38,600.00	main service
510-ASW18	250	300	LF	Pipe, 18 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	136.00	\$40,800.00	improve drainage around pool site
510-ASW24		200	LF	Pipe, 24 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	157.00	\$31,400.00	to SD outfall
510-ASW30			LF	Pipe, 30 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	249.00	\$0.00	
510-ASW36			LF	Pipe, 36 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	311.00	\$0.00	
510-ASW48			LF	Pipe, 48 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	351.00	\$0.00	
510-ASW54			LF	Pipe, 54 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	368.00	\$0.00	
510-ASW66			LF	Pipe, 66 - inch R.C.P. Storm Drain (all depths), including Excavation and Backfill	\$	403.00	\$0.00	
510-AWW6			LF	Pipe, 6" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$	114.00	\$0.00	

510-AWW8		200	LF	Pipe, 8" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 125.00	\$25,000.00	WW service to main on W. 10th
510-AWW12			LF	Pipe, 12" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 159.00	\$0.00	
510-AWW21			LF	Pipe, 21" Dia. PVC SDR-26 Type (all depths), including Excavation and Backfill	\$ 299.00	\$0.00	
510-BW8x2		1	EA	Connecting New 8" Water Service to 2" Private Service	\$ 4,600.00	\$4,600.00	irrigation service connection
510-BW8x4		1	EA	Connecting New 8" Water Service to 4" Private Service	\$ 6,200.00	\$6,200.00	domestic service connection
SP510-BW-M2		1	EA	New Water Meter, 2 Inch Meter and W Capital Recover Fee	\$ 55,000.00	\$55,000.00	irrigation meter/tap fee
SP510-BW-M4		1	EA	New Water Meter, 4 Inch Meter and W/WW Capital Recover Fee	\$ 321,000.00	\$321,000.00	domestic meter/tap fee
SP510-BW-RM2			EA	Relocate Existing Water Meter, 2 Inch Tap Fee	\$ 2,000.00	\$0.00	
510-BWW8x6		1	EA	Connecting New 8" Wastewater Service to Existing Private Service	\$ 4,600.00	\$4,600.00	connect to WW main on W. 10th
510-JW6X6			EA	Wet Connections, 6" Dia. x 6" Dia.	\$ 3,100.00	\$0.00	
510-JW8X8		1	EA	Wet Connections, 8" Dia. x 8" Dia.	\$ 3,300.00	\$3,300.00	connect to W main on W. 10th
510-JW16X16			EA	Wet Connections, 16" Dia. x 16" Dia.	\$ 4,600.00	\$0.00	
510-KW		2	TON	Ductile Iron Fittings	\$ 11,500.00	\$23,000.00	5 lb/ft
511S-A2		1	EA	Valves, Gate Type, 2" Diameter	\$ 1,000.00	\$1,000.00	
511S-A3			EA	Valves, Gate Type, 3" Diameter	\$ 1,200.00	\$0.00	
511S-A4	0	1	EA	Valves, Gate Type, 4" Diameter	\$ 1,500.00	\$1,500.00	1 each/250 ft
511S-A6		2	EA	Valves, Gate Type, 6" Diameter	\$ 1,900.00	\$3,800.00	for fire hydrants
511S-A8	0	1	EA	Valves, Gate Type, 8" Diameter	\$ 2,300.00	\$2,300.00	1 each/250 ft
511S-B		2	EA	Fire Hydrant (see Deatil No. 511S-17)	\$ 5,200.00	\$10,400.00	
511S-C2		1	EA	Pressure or Flow Control Valve Assemblies (2 Inch Backflow Preventer)	\$ 4,000.00	\$4,000.00	for irrigation service
511S-C8	1	1	EA	Pressure or Flow Control Valve Assemblies (8 Inch Double Check Valve Backflow Preventer)	\$ 16,000.00	\$16,000.00	For fire line
551			LF	Pipe Underdrains (for Tree Wells)	\$ 50.00	\$0.00	
591S-B		4	SY	Dry-Riprap	\$ 140.00	\$560.00	SD outfall
594S-C			CY	Revet Mattresses, Twisted Woven Wire	\$ 320.00	\$0.00	
602S-D			SY	Grass Sodding, General	\$ 7.00	\$0.00	
604S-A			SY	Non-Native Seeding for Erosion Control Method	\$ 6.00	\$0.00	
604S-E			SY	Mulch, Hardwood	\$ 23.00	\$0.00	
605S-A		300	SY	Soil Retention Blanket	\$ 24.00	\$7,200.00	
608S-1			EA	Plantings, Type BMP Native Grasses, Sedges, Woody Shrubs	\$ 23.00	\$0.00	1 ft spacing in Rain Garden
608S-1	42	42	EA	Trees, 20 Gal	\$ 600.00	\$25,200.00	30ft apart along sidewalk
608S-1			EA	Plants, 5 Gal	\$ 50.00	\$0.00	
608S-2		1	LS	Irrigation System	\$ 10,000.00	\$10,000.00	
609S-C		700	SY	Native Seeding for Erosion Control	\$ 7.00	\$4,900.00	
610S-A		200	LF	Tree Protective Fencing Type A Chain Link Fence	\$ 4.00	\$800.00	
610S-R		5	EA	Removal of Existing Trees	\$ 570.00	\$2,850.00	
SP628S-C		2	EA	Filter Curb Inlet Protection	\$ 120.00	\$240.00	
628S-B		100	LF	Sediment Containment Dikes with Filter Fabric	\$ 9.00	\$900.00	Triangular dike on pavement
639S		40	LF	Rock Berm	\$ 39.00	\$1,560.00	
640S			SF	Mortared Rock Wall	\$ 50.00	\$0.00	
641S		1	EA	Stabilized Construction Entrance	\$ 1,700.00	\$1,700.00	
642S		2,000	LF	Silt Fence for Erosion Control	\$ 4.00	\$8,000.00	
660S			CY	Bio-Filtration Media	\$ 114.00	\$0.00	
700S-TM		1	LS	Total Mobilization Payment	\$ 53,000.00	\$53,000.00	5% of all costs excluding Mob cost
701S-A6			LF	Chain Link Fence, 6-Ft	\$ 20.00	\$0.00	
701S-BS			EA	Chain Link Pedestrian Single Swing Gate (6 Ft x 4 Ft)	\$ 1,000.00	\$0.00	
701S-CD			EA	Chain Link Vehicular Double Swing Gate (6 Ft x 20 Ft)	\$ 2,300.00	\$0.00	
802S-BBond		1	EA	Bond Project Sign	\$ 700.00	\$700.00	
803S-SF			LF	Safety Fence	\$ 3.00	\$0.00	
SP803S-BAS			EA	Project Sign for Access	\$ 400.00	\$0.00	
SP803S-CD		80	CD	Barricades, Signs, and Traffic Handling.	\$ 600.00	\$48,000.00	160 CD/Block
SP803S-PS		35	CD	Portable Changeable Message Signs	\$ 120.00	\$4,200.00	70 CD/Block
824S		4	EA	Traffic Signs	\$ 400.00	\$1,600.00	

827S		3	EA	Bicycle Lane Signage	\$ 400.00	\$1,200.00	
829S		1,000	LF	Bicycle Lane Markings	\$ 8.00	\$8,000.00	
871S-A4W		50	LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 4 Inches in Width, 100 Mils in Thickness, White in Color	\$ 3.00	\$150.00	
871S-A24W			LF	ReflectORIZED Type 1 Thermoplastic Pavement Markings, 24 Inches in Width, 100 Mils in Thickness, White in Color	\$ 16.00	\$0.00	
871S-D-SYMBOL-W		1	EA	ReflectORIZED Type 1 Pavement Marking, Symbol, 100 Mils in Thickness, White in Color	\$ 400.00	\$400.00	
874S-A			LF	Eliminating Existing Pavement Markings, 4 Inches to 12 Inches in Width	\$ 12.00	\$0.00	
1301S-B			SY	Granite Gravel Hike & Bike Trail	\$ 21.00	\$0.00	10' wide connect to surrounding streets
16550S		1	EA	Street Light Standard Foundation, Including Pole Base and Conduit Stub Up	\$ 1,600.00	\$1,600.00	
		1	EA	Light Pole and LED Light	\$ 3,700.00	\$3,700.00	
		1	EA	Electrical Panel Enclosure	\$ 21,000.00	\$21,000.00	
		1	EA	Electrical Pull Box	\$ 1,200.00	\$1,200.00	
		100	LF	Electrical Trenching, Conduits, Conductors for Lighting	\$ 123.00	\$12,300.00	100' per light pole
					SUBTOTAL	\$1,110,371.00	
					CONTINGENCY	\$277,592.75	
					<b>TOTAL</b>	<b>\$1,387,963.75</b>	